

Workbook

on

Math

(Grade 5)



Produced by 57-75

in partnership with the Ateneo Center for Educational Development
and the Department of Education Divisions of

Bayombong (Nueva Vizcaya), Guimaras, Iligan City (Lanao del Norte), Iloilo City (Iloilo),
Pampanga, San Isidro (Nueva Ecija), Pagbilao (Quezon) and Sual (Pangasinan)

Workbook on Math (Grade 5)

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PREFACE

In April 2008 the **57-75** Movement organized a workbooks development write-shop in order to come up with an immediate and effective response to the problem of lacking textbooks and instructional materials in public schools. For two weeks, master teachers from each of the **57-75** pilot sites compiled a series of workbooks on Science, English, and Mathematics designed for their elementary and high school students.

The write-shop aimed to: (1) identify least mastered skills in a subject area; (2) produce lesson guides that will help increase the ability of classroom instructors in developing the mastery level of students particularly in problematic subject areas; and (3) help teachers be creative in developing their own instructional materials based on resources available to them in their respective schools.

Both the faculty and students of the public school system are expected to gain from this project. Teachers will not only be aided by the problem-solving and explanations given in the workbooks but will also be helped in terms of gearing their students towards a unified understanding of the subject matter. This workbook will also serve as an alternative medium of instruction in the absence of textbooks and other necessary teaching materials that the less fortunate may not be able to afford.

The workbooks development write-shop is also **57-75**'s contribution to enhancing the reading proficiencies in its pilot sites.

57-75, a private sector-led movement created to help address the many problems of Philippine education, was inspired by one of the many disturbing indicators of the state of Philippine education – the results of the National Achievement Test, in which grade school pupils scored close to 57.

The reversal of numbers in the campaign name – from 57 to 75 – symbolizes what the movement is trying to do: *turn things around*, about radically rethinking the way we look at our education system and the way we support it. We believe that this kind of rethinking will help turn around the dismal trends in Philippine education, and eventually change statistics from 57 to 75.

57-75 advocates *Focusing* on helping students stay in school, enhancing reading proficiencies, and improving achievement rates in math, science, and English; student and school *Performance*; and *Community Empowerment and Engagement*.

57-75 wishes to acknowledge the Ateneo Center for Educational Development for supervising the workshop. Much gratitude is also given to the League of Corporate Foundations' Committee on Education which funded the workshop through a grant provided by TeaM Energy Foundation, as well as to Jollibee Foundation for additional logistical support.

57-75 would also like to especially acknowledge the master teachers from the pilot sites – without their commitment, this workbook would not have been possible. We also extend our appreciation to the reviewers, editors and encoders of ACED who accommodated this project into their existing workload.

57-75 is also very grateful to the initial pool of corporate donors who have pledged to help in the reproduction of this workbook: TeaM Energy Foundation, Petron Foundation, Pilmico Corporation, BPI Foundation, Metrobank Foundation and Insular Life Foundation. Thank you for helping to reverse the education crisis!

In behalf of the National Task Force –

A handwritten signature in black ink, appearing to read 'M. Deriquito', is placed above the printed name 'MARIO A. DERIQUITO'.

MARIO A. DERIQUITO

Lesson 1: Multiplying 4- to 5- digit factors by 1- to 2- digit factors with or without regrouping.
(Competency I.A.1.1)

Exercise Set A

Directions: Find the product.

1.
$$\begin{array}{r} 5341 \\ \times 2 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 8023 \\ \times 3 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 61102 \\ \times 4 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 6523 \\ \times 4 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 8234 \\ \times 8 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 4721 \\ \times 36 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 1465 \\ \times 45 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 70164 \\ \times 27 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 92114 \\ \times 87 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 82789 \\ \times 79 \\ \hline \end{array}$$

Exercise Set B

Directions: Find the product.

1.
$$\begin{array}{r} 4323 \\ \times 3 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 8102 \\ \times 4 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 7234 \\ \times 2 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 6745 \\ \times 5 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 4176 \\ \times 7 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 8143 \\ \times 53 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 90274 \\ \times 72 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 6182 \\ \times 84 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 76335 \\ \times 48 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 98765 \\ \times 89 \\ \hline \end{array}$$

Lesson 2: Multiplying 4 to 5 digit factors by 2 digit factors without and with regrouping.
(Competency I.A.1.1.1)

Exercise Set A

Directions: Multiply then draw a star (★) on the blank before the number if the given product is correct. If not, write the correct answer.

$$\underline{\hspace{1cm}} \quad 1. \quad \begin{array}{r} 8013 \\ \times 23 \\ \hline 184299 \end{array}$$

$$\underline{\hspace{1cm}} \quad 2. \quad \begin{array}{r} 6320 \\ \times 32 \\ \hline 202340 \end{array}$$

$$\underline{\hspace{1cm}} \quad 3. \quad \begin{array}{r} 7323 \\ \times 21 \\ \hline 153783 \end{array}$$

$$\underline{\hspace{1cm}} \quad 4. \quad \begin{array}{r} 92031 \\ \times 31 \\ \hline 29852961 \end{array}$$

$$\underline{\hspace{1cm}} \quad 5. \quad \begin{array}{r} 83432 \\ \times 12 \\ \hline 1001184 \end{array}$$

$$\underline{\hspace{1cm}} \quad 6. \quad \begin{array}{r} 5642 \\ \times 54 \\ \hline 304668 \end{array}$$

$$\underline{\hspace{1cm}} \quad 7. \quad \begin{array}{r} 7822 \\ \times 46 \\ \hline 359812 \end{array}$$

$$\underline{\hspace{1cm}} \quad 8. \quad \begin{array}{r} 9365 \\ \times 83 \\ \hline 877294 \end{array}$$

$$\underline{\hspace{1cm}} \quad 9. \quad \begin{array}{r} 28677 \\ \times 45 \\ \hline 1390445 \end{array}$$

$$\underline{\hspace{1cm}} \quad 10. \quad \begin{array}{r} 57298 \\ \times 78 \\ \hline 4469244 \end{array}$$

Exercise Set B

Directions: Multiply. Draw a star (★) on the blank before the number if the given product is correct. If not, write the correct answer.

$$\underline{\hspace{1cm}} \quad 1. \quad \begin{array}{r} 9223 \\ \times 13 \\ \hline 119899 \end{array}$$

$$\underline{\hspace{1cm}} \quad 2. \quad \begin{array}{r} 7313 \\ \times 22 \\ \hline 160886 \end{array}$$

$$\underline{\hspace{1cm}} \quad 3. \quad \begin{array}{r} 8102 \\ \times 43 \\ \hline 332386 \end{array}$$

$$\underline{\hspace{1cm}} \quad 4. \quad \begin{array}{r} 50233 \\ \times 33 \\ \hline 166189 \end{array}$$

$$\underline{\hspace{1cm}} \quad 5. \quad \begin{array}{r} 61231 \\ \times 32 \\ \hline 1958391 \end{array}$$

$$\underline{\hspace{1cm}} \quad 6. \quad \begin{array}{r} 4582 \\ \times 63 \\ \hline 288666 \end{array}$$

$$\underline{\hspace{1cm}} \quad 7. \quad \begin{array}{r} 7463 \\ \times 56 \\ \hline 340928 \end{array}$$

$$\underline{\hspace{1cm}} \quad 8. \quad \begin{array}{r} 9264 \\ \times 84 \\ \hline 778176 \end{array}$$

$$\underline{\hspace{1cm}} \quad 9. \quad \begin{array}{r} 29186 \\ \times 93 \\ \hline 2714298 \end{array}$$

$$\underline{\hspace{1cm}} \quad 10. \quad \begin{array}{r} 98765 \\ \times 89 \\ \hline 8790085 \end{array}$$

Lesson 3: Multiplying 4 to 5 by 2-digit factors having one to three zeroes in one factor with and without regrouping.
(Competency I.A.1.1.2)

Exercise Set A

Directions: Match the factors with the product. Write the letters of the correct answer on the line before each factor.

_____ 1. $4,200 \times 42$

a. 176,400

_____ 2. $7,202 \times 30$

b. 216060

_____ 3. $3,000 \times 33$

c. 624,000

_____ 4. $60,101 \times 63$

d. 99,000

_____ 5. $84,000 \times 22$

e. 228,750

_____ 6. $3,050 \times 75$

f. 1,848,000

_____ 7. $9,1022 \times 40$

g. 3,786,363

_____ 8. $8,000 \times 78$

h. 4,369,056

_____ 9. 70029×89

i. 4,012,000

_____ 10. $59,000 \times 68$

j. 6,232,581

Lesson 3: Multiplying 4 to 5 by 2-digit factors having one to three zeroes in one factor with and without regrouping.
(Competency I.A.1.1.2)

Exercise Set B

Directions: Match the factors with the product. Write the letters of the correct answer on the line before each factor.

_____ 1. 6,042 x 31

a. 169,600

_____ 2. 5,300 x 32

b. 291,264

_____ 3. 7,104 x 41

c. 302,100

_____ 4. 91,020 x 43

d. 187,302

_____ 5. 4300 x 203

e. 590,850

_____ 6. 5,300 x 57

f. 872,900

_____ 7. 7,184 x 60

g. 431,040

_____ 8. 9,090 x 65

h. 3,913,860

_____ 9. 84,000 x 74

i. 6,499,000

_____ 10. 67,000 x 97

j. 6,216,000

Lesson 4: Multiplying 4 to 5 digit factors having one to three zeroes in both factors without regrouping.
(Competency I.A.1.1.3)

Exercise Set A

Directions: Find the product.

$$\begin{array}{r} 1. \quad \times 4100 \\ \quad \quad \underline{20} \end{array}$$

$$\begin{array}{r} 2. \quad \times 5120 \\ \quad \quad \underline{30} \end{array}$$

$$\begin{array}{r} 3. \quad \times 7000 \\ \quad \quad \underline{40} \end{array}$$

$$\begin{array}{r} 4. \quad \times 3100 \\ \quad \quad \underline{500} \end{array}$$

$$\begin{array}{r} 5. \quad \times 6200 \\ \quad \quad \underline{4000} \end{array}$$

$$\begin{array}{r} 6. \quad \times 73000 \\ \quad \quad \underline{30} \end{array}$$

$$\begin{array}{r} 7. \quad \times 82100 \\ \quad \quad \underline{40} \end{array}$$

$$\begin{array}{r} 8. \quad \times 63200 \\ \quad \quad \underline{300} \end{array}$$

$$\begin{array}{r} 9. \quad \times 43200 \\ \quad \quad \underline{2000} \end{array}$$

$$\begin{array}{r} 10. \times 91230 \\ \quad \quad \underline{12300} \end{array}$$

Exercise Set B

Directions: Find the product.

$$\begin{array}{r} 1. \quad \times 5100 \\ \quad \quad \underline{20} \end{array}$$

$$\begin{array}{r} 2. \quad \times 4130 \\ \quad \quad \underline{30} \end{array}$$

$$\begin{array}{r} 3. \quad \times 8000 \\ \quad \quad \underline{40} \end{array}$$

$$\begin{array}{r} 4. \quad \times 5100 \\ \quad \quad \underline{300} \end{array}$$

$$\begin{array}{r} 5. \quad \times 7300 \\ \quad \quad \underline{2000} \end{array}$$

$$\begin{array}{r} 6. \quad \times 92000 \\ \quad \quad \underline{30} \end{array}$$

$$\begin{array}{r} 7. \quad \times 63300 \\ \quad \quad \underline{20} \end{array}$$

$$\begin{array}{r} 8. \quad \times 52300 \\ \quad \quad \underline{200} \end{array}$$

$$\begin{array}{r} 9. \quad \times 91300 \\ \quad \quad \underline{3000} \end{array}$$

$$\begin{array}{r} 10. \times 72310 \\ \quad \quad \underline{13200} \end{array}$$

Lesson 5: Multiplying 4 to 5 digit numbers by 10, 100 and 1000.
(Competency I.A.1.1.4)

Exercise Set A

Directions: Mentally solve and give the products as fast as you can.

1.
$$\begin{array}{r} 1234 \\ \times 10 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 3456 \\ \times 10 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 5670 \\ \times 10 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 67891 \\ \times 10 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 2468 \\ \times 100 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 3691 \\ \times 100 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 2345 \\ \times 100 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 4812 \\ \times 100 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 54321 \\ \times 100 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 40413 \\ \times 1000 \\ \hline \end{array}$$

Exercise Set B

Directions: Solve and give the products as fast as you can.

1.
$$\begin{array}{r} 3145 \\ \times 10 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 2741 \\ \times 10 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 6708 \\ \times 10 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 83590 \\ \times 10 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 7416 \\ \times 100 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 2942 \\ \times 100 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 5546 \\ \times 100 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 73813 \\ \times 100 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 6198 \\ \times 1000 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 92374 \\ \times 1000 \\ \hline \end{array}$$

Lesson 6: Estimating the product of 2 to 4 digit numbers by 1 to 2 digit numbers.
(Competency I.A.1.1.5)

Exercise Set A

Directions: Estimate the product by rounding each factor to its highest value.

$$\begin{array}{r} 44 \rightarrow \underline{\hspace{1cm}} \\ 1. \ x \ 3 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 57 \rightarrow \underline{\hspace{1cm}} \\ 2. \ x \ 4 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 612 \rightarrow \underline{\hspace{1cm}} \\ 3. \ x \ 2 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 360 \rightarrow \underline{\hspace{1cm}} \\ 4. \ x \ 7 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 405 \rightarrow \underline{\hspace{1cm}} \\ 5. \ x \ 3 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 73 \rightarrow \underline{\hspace{1cm}} \\ 6. \ x \ 28 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 85 \rightarrow \underline{\hspace{1cm}} \\ 7. \ x \ 12 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 493 \rightarrow \underline{\hspace{1cm}} \\ 8. \ x \ 69 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 581 \rightarrow \underline{\hspace{1cm}} \\ 9. \ x \ 91 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 9888 \rightarrow \underline{\hspace{1cm}} \\ 10. \ x \ 98 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

Exercise Set B

Directions: Estimate the product by rounding each factor to its highest value.

$$\begin{array}{r} 62 \rightarrow \underline{\hspace{1cm}} \\ 1. \ x \ 2 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 81 \rightarrow \underline{\hspace{1cm}} \\ 2. \ x \ 3 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 356 \rightarrow \underline{\hspace{1cm}} \\ 3. \ x \ 5 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 291 \rightarrow \underline{\hspace{1cm}} \\ 4. \ x \ 4 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 1047 \rightarrow \underline{\hspace{1cm}} \\ 5. \ x \ 6 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 23 \rightarrow \underline{\hspace{1cm}} \\ 6. \ x \ 33 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 45 \rightarrow \underline{\hspace{1cm}} \\ 7. \ x \ 24 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 509 \rightarrow \underline{\hspace{1cm}} \\ 8. \ x \ 59 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 868 \rightarrow \underline{\hspace{1cm}} \\ 8. \ x \ 47 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

$$\begin{array}{r} 9999 \rightarrow \underline{\hspace{1cm}} \\ 10. \ x \ 99 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

Lesson 7: Solving word problems involving multiplication of whole numbers including money.
(Competency I.A.2.1)

Exercise Set A

Directions: Read and solve each problem. Write your answers in your notebook.

1. For twelve consecutive days, Mr. Sese was able to pick 880 mangoes daily. How many mangoes did he pick in all?
2. Jovy sells elegant party dresses. If a party dress costs Php2008, find the cost of 10 dresses.
3. The membership fee of Science Club is Php30. How much membership fee was collected from 3265 members nationwide?
4. A pair of leather shoes costs P1250. How much would 25 such pairs cost?
5. A lady's bag costs P675. How much capital money will a merchant use to buy 46 such bags for her store to sell?
6. Each of the 45 sewers of Excellent Garments can make 1325 pairs of socks in a week. How many pairs can all 45 sewers make in a week?
7. Mang Jun is two times as old as Jhong. If Jhong is 39 years old, how old is Mang Jun?
8. Mother sold 321 dozens of quail eggs. How many pieces of quail eggs did mother sell?
9. Mr. Cruz earns P18 590 a month as a schoolteacher. How much does he earn in a year?
10. A machine can produce 84 hollow blocks in one hour. How many hollow blocks can it produce in a week if it is operated 8 hours daily except Sunday?

Lesson 7: Solving word problems involving multiplication of whole numbers including money.
(Competency I.A.2.1)

Exercise Set B

Directions: Read and solve each problem. Write your solutions and answers in your notebook.

1. Joyce spends P150 for food and transportation daily. How much does she spend for food and transportation in 15 days?
2. Each of the 20 seminar participants paid a Php2000 registration fee. How much was the registration fee collected from all participants?
3. A person should have at least 8 hours of sleep everyday. At least how many hours of sleep would a person have in 365 days if he follows this advise?
4. There are 25 baskets of mangoes for export. If each basket contains 1124 mangoes, how many mangoes will there be for export?
5. There are 2548 seedlings to be distributed in each barangay. If there are 31 barangays, how many seedlings will be distributed?
6. Bing deposits P1500 in the bank. If she does this for 18 months, how much money would she have deposited by that time?
7. Mr. Rico sold 2321 copies of Mathematics books. Mr. Paz sold 10 times as many as Mr. Rico. How many Mathematics books did Mr. Paz sell?
8. A box contains a dozen chocolate cupcakes. How many cupcakes are there in 476 boxes?
9. A taxi consumes about 1200 liters of gasoline in a month. About how many liters were consumed in one year?
10. Bernard works out in the gym for 45 minutes every Monday, Wednesday and Friday. How many minutes of work out does he get in 4 weeks?

**Lesson 8: Solving 2-step word problems using multiplication and either addition or subtraction including money.
(Competency I.A.3.1)**

Exercise Set A

Directions: Read and solve the following problems correctly. Write your solutions and answers in your notebook.

1. Anthony has 128 playing cards. He gave his 8 friends 5 cards each and kept the rest for himself. How many cards did he keep for himself?
2. There are eight floors in a building. Each floor has 43 rooms. If 257 of these rooms are occupied, how many rooms are not occupied?
3. A certain school has 6 sections in Grade V and 5 sections in Grade VI. If each section has 47 pupils in both grade levels, how many Grade V and Grade VI pupils are there in all?
4. Mother bought six kilograms of ripe mangoes at Php45 per kilogram. How much change did she get if she gave the vendor Php300?
5. In a gym, the number of boys is three times as many as the number of girls. If there are 957 girls, how many boys and girls are there in all?
6. Help Minda solve her homework in Math. Multiply the sum of 3,400 and 1,500 by 5. What is the result?
7. The cashier gave Mrs. Mendoza 15 twenty-peso bills and 10 fifty-peso bills as change for her money. How much was her change?
8. Money was collected to help the flood victims. The 45 male teachers donated P100 each and the 73 female teachers donated P80 each. How much was turned over to the flood victims by all the teachers?
9. Pocketbooks are on sale at P50 each. If six or more books are bought at the same time, the price is further reduced to Php45.00. How much is saved by buying 10 books at the same time?
10. A laptop computer costs P21000. In order to buy it, Eric sets aside P1500 per month. He has been saving for 12 months already. How much more does he need?

**Lesson 8: Solving 2-step word problems using multiplication and either addition or subtraction including money.
(Competency I.A.3.1)**

Exercise Set B

Directions: Read and solve the following problems correctly. Write your solutions and answers in your notebook.

1. 21 boys and 27 girls brought 5 packs of noodles each to be given to the typhoon victims. How many pack of noodles were donated in all?
2. Mother bought a blouse that costs P350 and two pairs of pants at P500 each pair. How much did she pay for the clothes in all?
3. A set of jewelry includes a pair of pearl earrings which costs P160 and a matching bracelet which costs P250. How much would 3 sets cost?
4. How much change will I receive for my P1000 bill after buying 2 cans of powdered milk at P363 each?
5. 15 cases of soft drinks were delivered to our store. After a while, 4 cases were sold. If there are 24 bottles in each case, how many soft drink bottles were left?
6. Marty buys fresh roses at P8 each and sells them at P11 each. If he sells 120 roses, how much profit will he get?
7. Maria has 428 pieces of collected stamps from different countries. Jean has four times as many as Maria. How many stamps do they have altogether?
8. Father caught 10 kilograms of tilapia. He gave each of his 3 neighbors 1 kilogram and sold the rest at P55 per kilo. How much did he earn?
9. Charyle has four P50 bills, three P100 bills and six P20 bills. How much money does she have in all?
10. Help Maricar solve this math problem. What is 400 less than the product of 520 and 10?

Lesson 9: Dividing 4- to 5- digit numbers by 1 digit number without remainder.
(Competency I.B.1.1.1)

Exercise Set A

Directions: Match the division phrases or expression with the correct quotient.

$1724 \div 2$	•	•	606	•	•	$7236 \div 9$
$3636 \div 6$	•	•	804	•	•	$2586 \div 3$
$6645 \div 5$	•	•	862	•	•	$4242 \div 7$
$2412 \div 3$	•	•	2222	•	•	$11961 \div 9$
$8888 \div 4$	•	•	1329	•	•	$17776 \div 8$

Exercise Set B

Directions: Match the division phrases or expression with the correct quotient.

$1976 \div 2$	•	•	988	•	•	$1494 \div 6$
$1245 \div 5$	•	•	431	•	•	$2964 \div 3$
$8580 \div 4$	•	•	249	•	•	$3448 \div 8$
$6635 \div 5$	•	•	1327	•	•	$12870 \div 6$
$3017 \div 7$	•	•	2145	•	•	$11943 \div 9$

Lesson 10: Dividing 4- to 5- digit numbers by 2-digit number with or without remainder.
(Competency I.B.1.1.2)

Exercise Set A

Directions: Find the quotient.

1. $11 \overline{)2695}$

2. $12 \overline{)3912}$

3. $25 \overline{)6275}$

4. $15 \overline{)22725}$

5. $39 \overline{)39468}$

6. $24 \overline{)48336}$

7. $75 \overline{)19359}$

8. $52 \overline{)9365}$

9. $21 \overline{)11258}$

10. $88 \overline{)98738}$

Exercise Set B

Directions: Find the quotient.

1. $14 \overline{)2968}$

2. $18 \overline{)5418}$

3. $23 \overline{)9361}$

4. $16 \overline{)16368}$

5. $33 \overline{)55374}$

6. $45 \overline{)92745}$

7. $13 \overline{)7298}$

8. $25 \overline{)7424}$

9. $42 \overline{)23314}$

10. $99 \overline{)17228}$

Lesson 11: Dividing 4- to 5- digit numbers by 2- to 3- digit numbers with zero in the middle or continuous zeroes in the dividend.
(Competency I.B.1.1.3)

Exercise Set A

Directions: Divide then put a check (✓) on the blank before each item if the given quotient is correct and cross (x) if it is not.

_____ 1.
$$\begin{array}{r} 405 \\ 12 \overline{)4860} \end{array}$$

_____ 2.
$$\begin{array}{r} 541 \\ 26 \overline{)14066} \end{array}$$

_____ 3.
$$\begin{array}{r} 129r4 \\ 34 \overline{)4400} \end{array}$$

_____ 4.
$$\begin{array}{r} 235 \\ 111 \overline{)26085} \end{array}$$

_____ 5.
$$\begin{array}{r} 214 \\ 225 \overline{)48150} \end{array}$$

_____ 6.
$$\begin{array}{r} 150r50 \\ 333 \overline{)50000} \end{array}$$

Exercise Set B

Directions: Divide then put a check (✓) on the blank before each item if the given quotient is correct and cross (x) if it is not.

_____ 1.
$$\begin{array}{r} 250 \\ 15 \overline{)3750} \end{array}$$

_____ 2.
$$\begin{array}{r} 233 \\ 30 \overline{)7008} \end{array}$$

_____ 3.
$$\begin{array}{r} 912r44 \\ 45 \overline{)41084} \end{array}$$

_____ 4.
$$\begin{array}{r} 40r45 \\ 199 \overline{)8005} \end{array}$$

_____ 5.
$$\begin{array}{r} 119r63 \\ 123 \overline{)14700} \end{array}$$

_____ 6.
$$\begin{array}{r} 303 \\ 251 \overline{)76053} \end{array}$$

Lesson 12: Dividing whole numbers by 10, 100 and 1,000.
(Competency I.B.1.1.4)

Exercise Set A

Directions: Solve for the quotient mentally. Write your answer on the blank.

_____ 1. $570 \div 10$

_____ 2. $2,300 \div 100$

_____ 3. $71,000 \div 1000$

_____ 4. $392,000 \div 100$

_____ 5. $6,575,000 \div 1000$

_____ 6. $3,200 \div 10$

_____ 7. $5,600 \div 100$

_____ 8. $44,000 \div 1,000$

_____ 9. $810,000 \div 1,000$

_____ 10. $192,000 \div 1,000$

Exercise Set B

Directions: Solve for the quotient mentally. Write your answer on the blank.

_____ 1. $400 \div 10$.

_____ 2. $8,000 \div 100$

_____ 3. $5,000 \div 1000$

_____ 4. $21,000 \div 1000$

_____ 5. $730,000 \div 100$

_____ 6. $6,400 \div 100$

_____ 7. $180,000 \div 1,000$

_____ 8. $30,000 \div 1,000$

_____ 9. $480,000 \div 10,000$

_____ 10. $12,100,000 \div 10,000$

Lesson 13: Estimating the quotient of 4- to 5- digit dividends by 1- to 2- digit divisors.
(Competency I.B.1.1.5)

Exercise Set A

Directions: Choose the best quotient estimate. Encircle the letter of the correct answer.

1. $1,936 \div 8 = \underline{\hspace{2cm}}$
a. 20 b. 200 c. 200
2. $2,413 \div 5 = \underline{\hspace{2cm}}$
a. 4 b. 40 c. 400
3. $4,131 \div 7 = \underline{\hspace{2cm}}$
a. 50 b. 500 c. 5000
4. $23,285 \div 6 = \underline{\hspace{2cm}}$
a. 30 b. 300 c. 3000
5. $39,485 \div 9 = \underline{\hspace{2cm}}$
a. 4000 b. 400 c. 40
6. $6,245 \div 18 = \underline{\hspace{2cm}}$
a. 30 b. 300 c. 3000
7. $1,872 \div 23 = \underline{\hspace{2cm}}$
a. 80 b. 800 c. 8000
8. $5,883 \div 56 = \underline{\hspace{2cm}}$
a. 10 b. 100 c. 1000
9. $72,494 \div 86 = \underline{\hspace{2cm}}$
a. 8 b. 80 c. 800
10. $65,146 \div 28 = \underline{\hspace{2cm}}$
a. 200 b. 2000 c. 20000

Exercise Set B

Directions: Choose the best quotient estimate. Encircle the letter of the correct answer.

1. $4,924 \div 8 = \underline{\hspace{2cm}}$
a. 600 b. 6000 c. 6
2. $8,424 \div 9 = \underline{\hspace{2cm}}$
a. 9000 b. 900 c. 9
3. $3,107 \div 2 = \underline{\hspace{2cm}}$
a. 1500 b. 150 c. 15
4. $6,728 \div 7 = \underline{\hspace{2cm}}$
a. 1000 b. 10 c. 100
5. $2,892 \div 5 = \underline{\hspace{2cm}}$
a. 600 b. 6 c. 60
6. $5,645 \div 36 = \underline{\hspace{2cm}}$
a. 15 b. 150 c. 1500
7. $3,446 \div 28 = \underline{\hspace{2cm}}$
a. 1000 b. 1 c. 100
8. $3,432 \div 21 = \underline{\hspace{2cm}}$
a. 20 b. 2000 c. 200
9. $39,108 \div 82 = \underline{\hspace{2cm}}$
a. 500 b. 5000 c. 5
10. $17,942 \div 32 = \underline{\hspace{2cm}}$
a. 6 b. 600 c. 6000

Lesson 14: Solving word problems involving division of 4- to 5- digit numbers by 2 to 3 digit numbers including money.
(Competency I.B.2.1)

Exercise Set A

Directions: Analyze and solve the following problems. Write your solutions and answers in your notebook.

1. A girl can read 60 words per minute. How many minutes will it take her to read a story containing 7380 words?
2. In the Clean and Green contest, a total cash prize of P48 000 to be divided equally among 12 barangays. How much did each barangay receive?
3. Melba works as secretary in a garment factory. Her monthly salary is Php9360.00. How much does she earn daily, working 26 days a month?
4. The Rotary Club in our town organized 11 teams of doctors and nurses to treat people for free in remote areas. The teams treated 2,695 patients. If each team of doctors and nurses treated the same number of patients, how many patients did each team treat?
5. The class of 5-Mayumi spent P3,055.00 for the food in their Christmas party. Every student gave an equal amount for his/her share. If each student gave Php65, how many students were in that class?
6. There were 15,500 growing trees planted by the 124 volunteers. On the average, if each volunteer planted the same number of trees, how many trees did each volunteer plant?

Exercise Set B

Directions: Analyze and solve the following problems. Write your solutions and answers in your notebook.

1. There are 54,000 vitamin tablets to be packed in 60's. The packs are to be distributed to patients. How many patients will receive the vitamin tablets?
2. A bus can accommodate 100 pupils. How many buses are needed to transport 2,000 pupils from the school to the museum?
3. The local government spent Php11,400.00 to buy seedlings that were distributed equally among 38 barangays. How much was spent for each barangay?
4. There are 3,674 participants who came from 22 different provinces. If each province sent the same number of delegates/participants, how many participants represented each province?
5. Thirty-nine classes collected a total of 3,588 kg of old newspapers for recycling. On the average, if each class collected the same number of newspaper, how many kilograms of newspaper did each class collect?
6. A certain stadium has a seating capacity of 12,240. If all rows have the same number of seats, How many seats are there in each of the 120 rows?

**Lesson 15: Solving 2- to 3- step word problems using division and any one of the other fundamental operations learned including money.
(Competency I.B.3.1)**

Exercise Set A

Directions: Analyze and solve the following problems. Write your solutions and answers in your notebook.

1. There are 925 male and 750 female delegates in a national seminar. A table seats 25 people. How many such tables are needed for the dinner?
2. JB is reading a 150-page storybook. She has already read 70 pages. Whenever she has time she reads an average of 20 pages a day. About how many days will it take her to finish reading the rest of the book?
3. A kilogram of grapes costs Php 120.00. Mikee bought a kilogram of grapes and 3 kilograms of apples. She paid a total of Php 468.00. How much was a kilogram of apples?
4. Four bakeries in town donated doughnuts for 100 street children. There were no doughnuts left after each child got 2 pieces. If the bakeries donated the same number of doughnuts, how many doughnuts did each bakery donate?
5. I am a five-digit number. The sum of my first two digits is 9. Divide me by 900 and the quotient is 90. What number am I?

Exercise Set B

Directions: Analyze and solve the following problems. Write your solutions and answers in your notebook.

1. If Jojo earns Php3400 a week, how much does he earn per hour if he works 8 hours per day for 5-day week?
2. Mr. Mendoza's car travels 12 km per liter of gasoline. At an average price of P31 per liter, what is the minimum amount he needs to spend on gasoline to travel a distance of 2 016 km?
3. Mr. Dela Cruz owns 1,000 square meters of lot. He sold 180 square meters of it to Mr. Reynoso and divided the rest of the lot among his 4 children. How big was the piece of lot given to each child?
4. Mang Luis gathered 3,456 eggs from his poultry farm. The eggs were placed in trays that can contain 4 dozen eggs each. How many trays did Mang Luis use?
5. Mrs. Valencia needed Php25,540.00 for her child's tuition fee. She paid a down payment of Php10,000.00 and promised to pay the remaining balance in 3 equal installments. How much is each installment?

Lesson 16: Identifying prime and composite numbers.
(Competency II.A.1.1)

Exercise Set A

Directions: List the factors of each number then determine whether the number is prime or composite. Write your answers on the spaces provided.

	Factors	Prime or Composite
5		
8		
11		
16		
21		
28		
31		
43		
36		
54		

Exercise Set B

Directions: Color the boxes with composite numbers red and those with prime numbers green.

7	9	11	25	29
51	41	37	50	57
63	72	17	67	12
76	80	83	88	91
94	99	101	120	134

Lesson 17: Finding the prime factorization of a given number.
(Competency II.A.1.2)

Exercise Set A

Directions: Complete each factor tree then write the prime factorization of the number.

1.
$$\begin{array}{c} 9 \\ \swarrow \quad \searrow \\ _ \quad \times \quad _ \end{array}$$

 $9 = _$

2.
$$\begin{array}{c} 18 \\ \swarrow \quad \searrow \\ 2 \quad \times \quad _ \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ 2 \quad \times \quad _ \quad \times \quad _ \end{array}$$

 $18 = _$

3.
$$\begin{array}{c} 30 \\ \swarrow \quad \searrow \\ _ \quad \times \quad 5 \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ _ \quad \times \quad _ \quad \times \quad _ \end{array}$$

 $30 = _$

4.
$$\begin{array}{c} 42 \\ \swarrow \quad \searrow \\ _ \quad \times \quad 7 \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ _ \quad \times \quad _ \quad \times \quad 7 \end{array}$$

 $42 = _$

5.
$$\begin{array}{c} 56 \\ \swarrow \quad \searrow \\ _ \quad \times \quad 8 \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ 7 \quad \times \quad _ \quad \times \quad _ \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ 7 \quad \times \quad _ \quad \times \quad 2 \quad \times \quad 2 \end{array}$$

 $56 = _$

Directions: Find the prime factorization using the continuous division method.

6.
$$\begin{array}{r} 2 \overline{)40} \\ \underline{} \\ \\ \underline{} \\ \\ \underline{} \\ \end{array}$$

 $40 = _$

7.
$$\begin{array}{r} 3 \overline{)81} \\ \underline{} \\ \\ \underline{} \\ \\ \underline{} \\ \end{array}$$

 $81 = _$

8.
$$\begin{array}{r} 2 \overline{)54} \\ \underline{} \\ \\ \underline{} \\ \\ \underline{} \\ \end{array}$$

 $54 = _$

9.
$$\begin{array}{r} \overline{)100} \\ \underline{} \\ \end{array}$$

10.
$$\begin{array}{r} \overline{)144} \\ \underline{} \\ \end{array}$$

Lesson 17: Finding the prime factorization of a given number.
(Competency II.A.1.2)

Exercise Set B

Directions: Use factor tree to express each number as a product of prime factors.

1. 16

2. 38

3. 70

4. 81

5. 200

Find the prime factorization of the following numbers using the continuous division method.

6. 27

7. 36

8. 42

9. 150

10. 238

Lesson 18: Finding the greatest common factor (GCF) of a given set of numbers.
(Competency II.A.1.3)

Exercise Set A

Directions: Complete the table.

	Number Sets	Set of all Factors	Common Factors	GCF
1.	$\left\{ \begin{array}{l} 9 \\ 10 \end{array} \right\}$			
2.	$\left\{ \begin{array}{l} 12 \\ 32 \end{array} \right\}$			
3.	$\left\{ \begin{array}{l} 14 \\ 56 \end{array} \right\}$			
4.	$\left\{ \begin{array}{l} 42 \\ 60 \end{array} \right\}$			
5.	$\left\{ \begin{array}{l} 24 \\ 30 \\ 36 \end{array} \right\}$			

Directions: Use the prime factorization method to find the GCF of each pair of numbers.

- | | | |
|--------------|--------------|---------------|
| 6. 4 = _____ | 7. 9 = _____ | 8. 18 = _____ |
| 10 = _____ | 45 = _____ | 24 = _____ |
| GCF = _____ | GCF = _____ | GCF = _____ |
-
- | | |
|---------------|----------------|
| 9. 32 = _____ | 10. 54 = _____ |
| 42 = _____ | 60 = _____ |
| GCF = _____ | 72 = _____ |
| | GCF = _____ |

Lesson 18: Finding the greatest common factor (GCF) of a given set of numbers.
(Competency II.A.1.3)

Exercise Set B

Directions: Complete the table.

	Number Sets	Set of all Factors	Common Factors	GCF
1.	$\left\{ \begin{array}{l} 4 \\ 10 \end{array} \right\}$			
2.	$\left\{ \begin{array}{l} 9 \\ 45 \end{array} \right\}$			
3.	$\left\{ \begin{array}{l} 16 \\ 24 \end{array} \right\}$			
4.	$\left\{ \begin{array}{l} 15 \\ 27 \end{array} \right\}$			
5.	$\left\{ \begin{array}{l} 12 \\ 18 \\ 24 \end{array} \right\}$			

Directions: Use the prime factorization method to find the GCF of each pair of numbers.

6. $15 = \underline{\hspace{2cm}}$
 $9 = \underline{\hspace{2cm}}$
GCF = $\underline{\hspace{2cm}}$

7. $8 = \underline{\hspace{2cm}}$
 $40 = \underline{\hspace{2cm}}$
GCF = $\underline{\hspace{2cm}}$

8. $16 = \underline{\hspace{2cm}}$
 $48 = \underline{\hspace{2cm}}$
GCF = $\underline{\hspace{2cm}}$

9. $21 = \underline{\hspace{2cm}}$
 $35 = \underline{\hspace{2cm}}$
GCF = $\underline{\hspace{2cm}}$

10. $63 = \underline{\hspace{2cm}}$
 $54 = \underline{\hspace{2cm}}$
GCF = $\underline{\hspace{2cm}}$

Lesson 19: Finding the least common multiple (LCM) of a given set of numbers.
(Competency II.A.1.4)

Exercise Set A

Directions: Complete the chart.

	Number Sets	First 5-10 Multiples	Common non-zero Multiples	LCM
1.	$\left\{ \begin{array}{l} 4 \\ 6 \end{array} \right\}$			
2.	$\left\{ \begin{array}{l} 10 \\ 15 \end{array} \right\}$			
3.	$\left\{ \begin{array}{l} 9 \\ 12 \end{array} \right\}$			

Directions: Find the LCM for each pair of numbers using prime factorization.

4. $8 = \underline{\hspace{2cm}}$

$10 = \underline{\hspace{2cm}}$

LCM = $\underline{\hspace{2cm}}$

5. $15 = \underline{\hspace{2cm}}$

$25 = \underline{\hspace{2cm}}$

LCM = $\underline{\hspace{2cm}}$

6. $20 = \underline{\hspace{2cm}}$

$30 = \underline{\hspace{2cm}}$

LCM = $\underline{\hspace{2cm}}$

7. $32 = \underline{\hspace{2cm}}$

$48 = \underline{\hspace{2cm}}$

LCM = $\underline{\hspace{2cm}}$

8. $81 = \underline{\hspace{2cm}}$

$72 = \underline{\hspace{2cm}}$

LCM = $\underline{\hspace{2cm}}$

9. $14 = \underline{\hspace{2cm}}$

$12 = \underline{\hspace{2cm}}$

$9 = \underline{\hspace{2cm}}$

LCM = $\underline{\hspace{2cm}}$

Lesson 19: Finding the least common multiple (LCM) of a given set of numbers.
(Competency II.A.1.4)

Exercise Set B

Directions: Complete the chart.

	Number Sets	First 5-10 Multiples	Common non-zero Multiples	LCM
1.	$\begin{cases} 3 \\ 5 \end{cases}$			
2.	$\begin{cases} 6 \\ 12 \end{cases}$			
3.	$\begin{cases} 20 \\ 25 \end{cases}$			

Directions: Find the LCM for each set of numbers using prime factorization.

4. $6 = \underline{\hspace{2cm}}$

$9 = \underline{\hspace{2cm}}$

LCM = $\underline{\hspace{2cm}}$

5. $14 = \underline{\hspace{2cm}}$

$21 = \underline{\hspace{2cm}}$

LCM = $\underline{\hspace{2cm}}$

6. $25 = \underline{\hspace{2cm}}$

$50 = \underline{\hspace{2cm}}$

LCM = $\underline{\hspace{2cm}}$

8. $15 = \underline{\hspace{2cm}}$

$16 = \underline{\hspace{2cm}}$

LCM = $\underline{\hspace{2cm}}$

8. $36 = \underline{\hspace{2cm}}$

$45 = \underline{\hspace{2cm}}$

LCM = $\underline{\hspace{2cm}}$

9. $12 = \underline{\hspace{2cm}}$

$24 = \underline{\hspace{2cm}}$

$48 = \underline{\hspace{2cm}}$

LCM = $\underline{\hspace{2cm}}$

Lesson 20: Identifying equal fractions.
(Competency II.A.2.1)

Exercise Set A

Directions: Write = or $\neq$ between the two fractions.

1. $\frac{1}{2}$ $\frac{7}{14}$

2. $\frac{3}{5}$ $\frac{8}{10}$

3. $\frac{5}{6}$ $\frac{7}{9}$

4. $\frac{2}{12}$ $\frac{6}{36}$

5. $\frac{4}{5}$ $\frac{16}{20}$

6. $\frac{3}{4}$ $\frac{12}{16}$

7. $\frac{1}{6}$ $\frac{1}{3}$

8. $\frac{9}{15}$ $\frac{3}{5}$

9. $\frac{20}{25}$ $\frac{5}{6}$

10. $\frac{6}{8}$ $\frac{18}{24}$

Exercise Set B

Directions: Write Yes on the blank if the pair of fractions are equal and No if they are not equal.

_____ 1. $\frac{2}{3}$ $\frac{8}{12}$ _____ 2. $\frac{1}{9}$ $\frac{5}{45}$

_____ 3. $\frac{4}{8}$ $\frac{3}{10}$ _____ 4. $\frac{3}{5}$ $\frac{9}{15}$

_____ 5. $\frac{3}{5}$ $\frac{9}{15}$ _____ 6. $\frac{8}{10}$ $\frac{4}{5}$

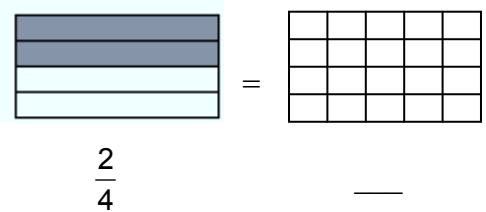
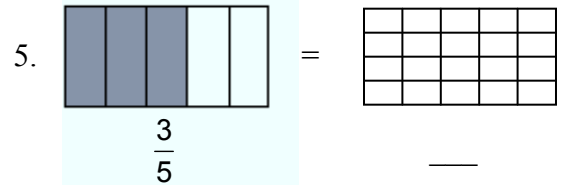
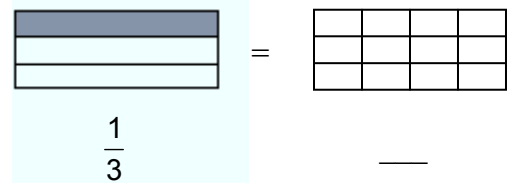
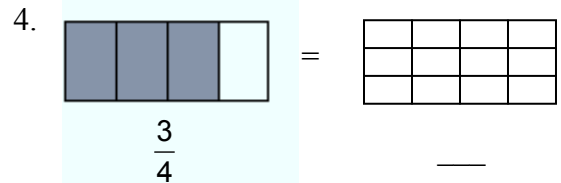
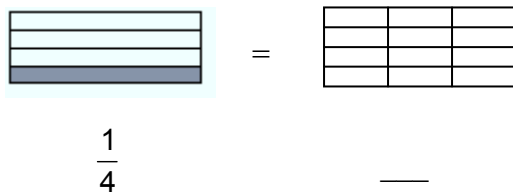
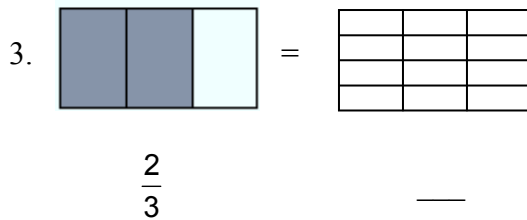
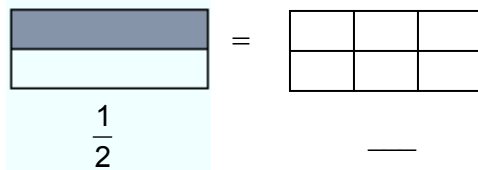
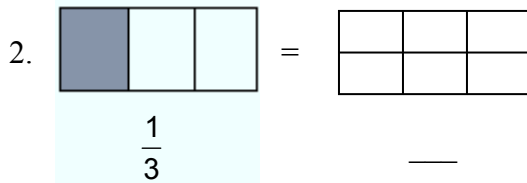
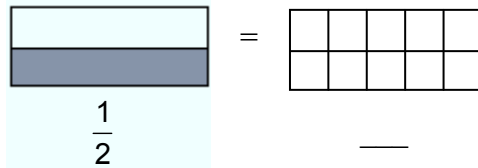
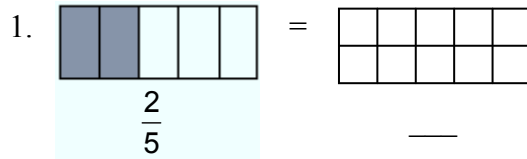
_____ 7. $\frac{6}{7}$ $\frac{9}{12}$ _____ 8. $\frac{9}{18}$ $\frac{2}{3}$

_____ 9. $\frac{18}{27}$ $\frac{6}{9}$ _____ 10. $\frac{16}{21}$ $\frac{10}{30}$

Lesson 21: Visualizing/changing dissimilar fractions to similar fractions. (Competency II.A.2.2)

Exercise Set A

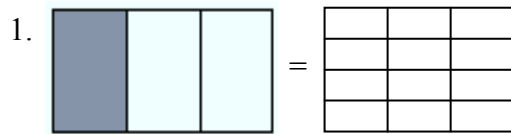
Directions: Shade the same region in the second figure in each set



Lesson 21: Visualizing/changing dissimilar fractions to similar fractions. (Competency II.A.2.2)

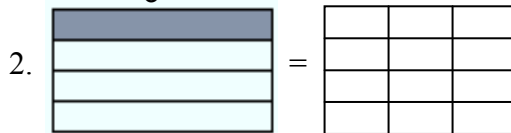
Exercise Set B

Directions: Use the figures below to help you change dissimilar fractions to similar fractions. Shade the equivalent region in the second figure.



$$\frac{1}{3}$$

—



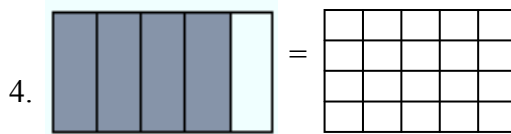
$$\frac{1}{4}$$

—



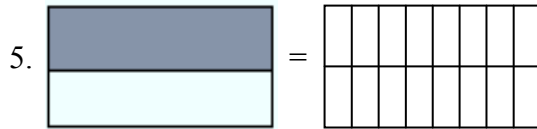
$$\frac{1}{3}$$

—



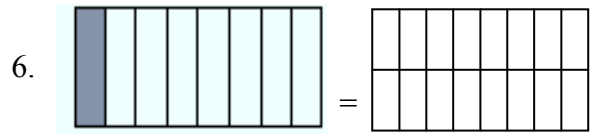
$$\frac{4}{5}$$

—



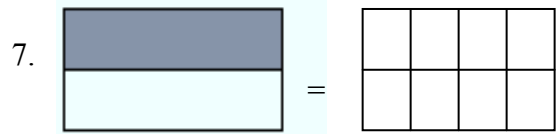
$$\frac{1}{2}$$

—



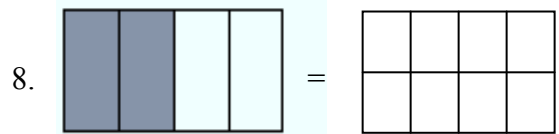
$$\frac{1}{8}$$

—



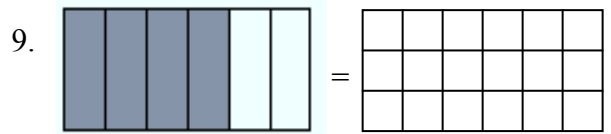
$$\frac{1}{2}$$

—



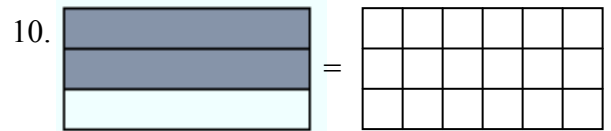
$$\frac{2}{4}$$

—



$$\frac{4}{6}$$

—



$$\frac{2}{3}$$

—

Lesson 22: Reducing fractions to lowest term.
(Competency II.A.2.3)

Exercise Set A

Directions: Reduce the following fractions to lowest terms. If the fraction is already in lowest terms, encircle it.

1. $\frac{3}{4}$, $\frac{14}{21}$, $\frac{2}{8}$

2. $\frac{4}{28}$, $\frac{4}{5}$, $\frac{4}{8}$

2. $\frac{2}{3}$, $\frac{6}{9}$, $\frac{4}{6}$

4. $\frac{5}{10}$, $\frac{8}{32}$, $\frac{3}{7}$

6. $\frac{8}{9}$, $\frac{9}{45}$, $\frac{3}{6}$

6. $\frac{6}{8}$, $\frac{9}{54}$, $\frac{3}{5}$

7. $\frac{3}{6}$, $\frac{16}{48}$, $\frac{2}{3}$

8. $\frac{12}{18}$, $\frac{4}{9}$, $\frac{3}{12}$

8. $\frac{9}{10}$, $\frac{14}{32}$, $\frac{2}{6}$

10. $\frac{15}{60}$, $\frac{11}{12}$, $\frac{12}{18}$

Exercise Set B

Directions: Change each fraction to its lowest term. Write your answer on the blank.

1. $\frac{4}{6} = \underline{\hspace{2cm}}$

2. $\frac{8}{40} = \underline{\hspace{2cm}}$

2. $\frac{3}{27} = \underline{\hspace{2cm}}$

4. $\frac{16}{20} = \underline{\hspace{2cm}}$

4. $\frac{15}{40} = \underline{\hspace{2cm}}$

6. $\frac{9}{36} = \underline{\hspace{2cm}}$

6. $\frac{10}{60} = \underline{\hspace{2cm}}$

8. $\frac{24}{28} = \underline{\hspace{2cm}}$

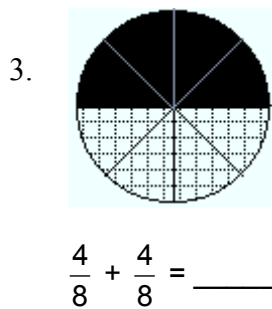
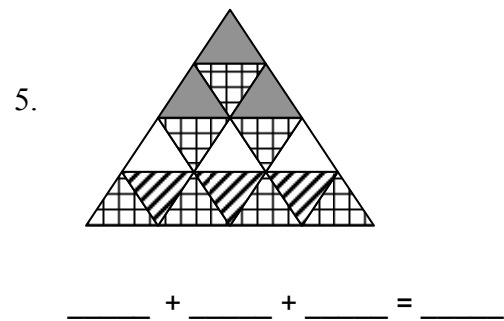
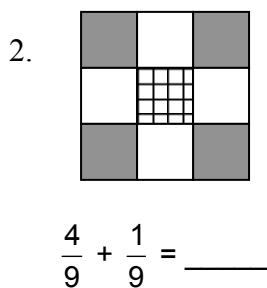
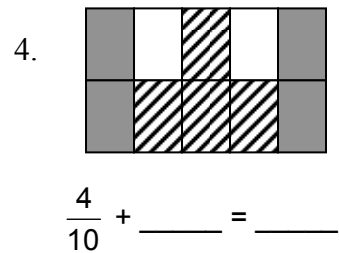
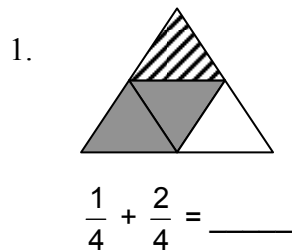
9. $\frac{18}{48} = \underline{\hspace{2cm}}$

10. $\frac{72}{81} = \underline{\hspace{2cm}}$

Lesson 23: Visualizing addition of similar fractions.
(Competency II.B.1.1)

Exercise Set A

Directions: Name the shaded regions in each figure then fill in the blanks.

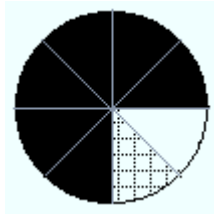


Lesson 23: Visualizing addition of similar fractions.
(Competency II.B.1.1)

Exercise Set B

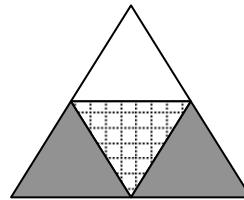
Directions: Look at the diagrams and fill in the blanks.

1.



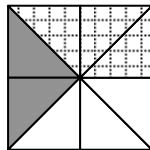
$$\frac{6}{8} + \frac{1}{8} = \underline{\hspace{2cm}}$$

4.



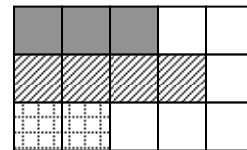
$$\underline{\hspace{2cm}} + \frac{1}{4} = \underline{\hspace{2cm}}$$

2.



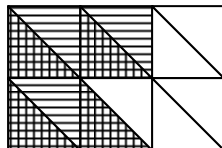
$$\frac{2}{8} + \frac{3}{8} = \underline{\hspace{2cm}}$$

5.



$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

3.



$$\frac{4}{12} + \frac{3}{12} = \underline{\hspace{2cm}}$$

Lesson 24: Adding two to four similar fractions without regrouping in the sum.
(Competency II.B.1.1.1)

Exercise Set A

Directions: Add the fractions. Reduce each sum to lowest terms.

1. $\frac{2}{5} + \frac{1}{5} = \underline{\hspace{2cm}}$

2. $\frac{6}{9} + \frac{2}{9} = \underline{\hspace{2cm}}$

3. $\frac{6}{10} + \frac{1}{10} + \frac{2}{10} = \underline{\hspace{2cm}}$

4. $\frac{1}{8} + \frac{2}{8} + \frac{4}{8} = \underline{\hspace{2cm}}$

5. $\frac{3}{16} + \frac{7}{16} + \frac{1}{16} + \frac{4}{16} = \underline{\hspace{2cm}}$

6. $\frac{4}{8} + \frac{2}{8} = \underline{\hspace{2cm}}$

7. $\frac{4}{14} + \frac{3}{14} = \underline{\hspace{2cm}}$

8. $\frac{6}{18} + \frac{6}{18} + \frac{2}{18} = \underline{\hspace{2cm}}$

9. $\frac{9}{24} + \frac{6}{24} + \frac{3}{24} = \underline{\hspace{2cm}}$

10. $\frac{9}{25} + \frac{3}{25} + \frac{2}{25} + \frac{6}{25} = \underline{\hspace{2cm}}$

Exercise Set B

Directions: Add the fractions. Reduce each sum to lowest terms.

1. $\frac{3}{9} + \frac{1}{9} = \underline{\hspace{2cm}}$

2. $\frac{5}{12} + \frac{2}{12} = \underline{\hspace{2cm}}$

3. $\frac{4}{20} + \frac{10}{20} + \frac{3}{20} = \underline{\hspace{2cm}}$

4. $\frac{4}{15} + \frac{7}{15} + \frac{3}{15} = \underline{\hspace{2cm}}$

5. $\frac{11}{30} + \frac{5}{30} + \frac{4}{30} + \frac{3}{30} = \underline{\hspace{2cm}}$

6. $\frac{3}{10} + \frac{5}{10} = \underline{\hspace{2cm}}$

7. $\frac{3}{6} + \frac{1}{6} = \underline{\hspace{2cm}}$

8. $\frac{6}{24} + \frac{2}{24} + \frac{2}{24} = \underline{\hspace{2cm}}$

9. $\frac{12}{32} + \frac{8}{32} + \frac{4}{32} = \underline{\hspace{2cm}}$

10. $\frac{6}{40} + \frac{10}{40} + \frac{4}{40} + \frac{6}{40} = \underline{\hspace{2cm}}$

Lesson 25: Adding mixed numbers with regular in the sum.

Exercise Set A

Directions: Find the sum. Express the final answer in simplest form.

1. $1\frac{2}{5} + \frac{4}{5} = \underline{\hspace{2cm}}$

2. $2\frac{3}{4} + 1\frac{3}{4} = \underline{\hspace{2cm}}$

3. $2\frac{6}{7} + \frac{4}{7} = \underline{\hspace{2cm}}$

4. $\frac{8}{12} + 1\frac{4}{12} = \underline{\hspace{2cm}}$

5. $\frac{7}{9} + 1\frac{4}{9} + \frac{2}{9} = \underline{\hspace{2cm}}$

6. $3\frac{1}{4} + 2\frac{3}{4} + 1\frac{1}{4} = \underline{\hspace{2cm}}$

7. $1\frac{2}{3} + 1\frac{2}{3} + 1\frac{2}{3} = \underline{\hspace{2cm}}$

8. $\frac{19}{14} + 2\frac{1}{14} = \underline{\hspace{2cm}}$

9. $\frac{4}{15} + 2\frac{12}{15} + 3\frac{1}{15} = \underline{\hspace{2cm}}$

10. $2\frac{1}{8} + 4\frac{5}{8} + 1\frac{4}{8} = \underline{\hspace{2cm}}$

Exercise Set B

Directions: Find the sum. Express the final answer in simplest form.

1. $2\frac{1}{2} + 5\frac{1}{2} = \underline{\hspace{2cm}}$

2. $\frac{5}{3} + 1\frac{2}{3} = \underline{\hspace{2cm}}$

3. $1\frac{8}{11} + \frac{7}{11} = \underline{\hspace{2cm}}$

4. $2\frac{10}{21} + 4\frac{7}{21} + \frac{12}{21} = \underline{\hspace{2cm}}$

5. $1\frac{4}{5} + 2\frac{3}{5} + 1\frac{1}{5} = \underline{\hspace{2cm}}$

6. $10\frac{7}{10} + 2\frac{3}{10} + 1\frac{5}{10} = \underline{\hspace{2cm}}$

7. $3\frac{4}{9} + \frac{2}{9} + \frac{8}{9} = \underline{\hspace{2cm}}$

8. $1\frac{3}{4} + 9\frac{2}{4} + 2\frac{1}{4} = \underline{\hspace{2cm}}$

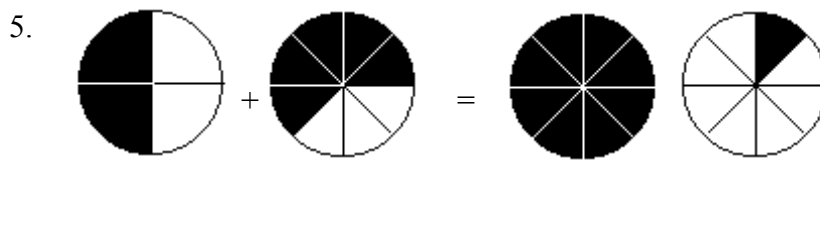
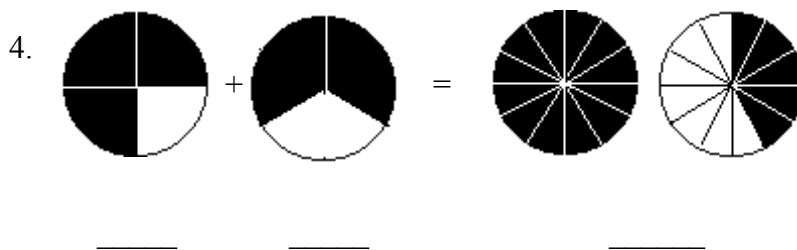
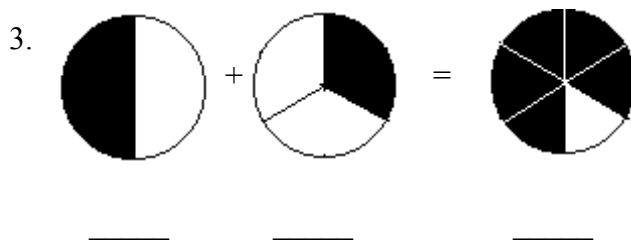
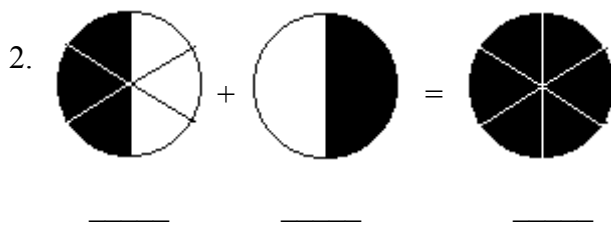
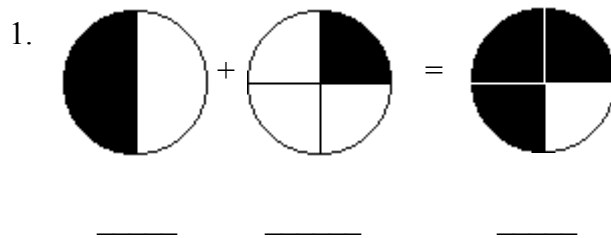
9. $5\frac{5}{8} + 3\frac{7}{8} + 1\frac{1}{8} = \underline{\hspace{2cm}}$

10. $1\frac{4}{6} + 2\frac{3}{6} + \frac{1}{6} = \underline{\hspace{2cm}}$

Lesson 26: Visualizing addition of dissimilar fractions.
(Competency II.B.1.1.3)

Exercise Set A

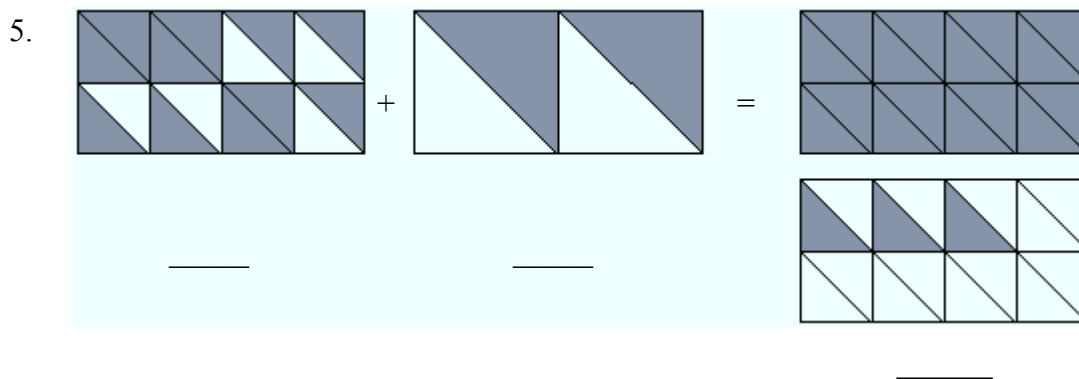
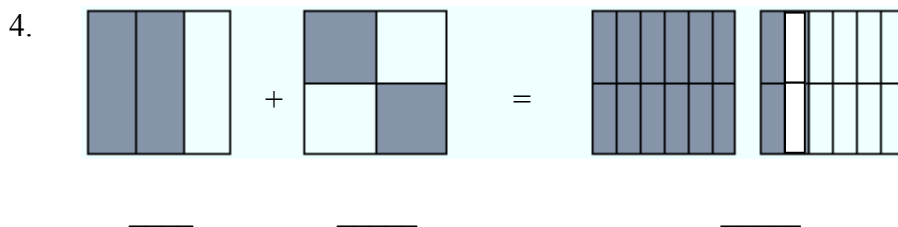
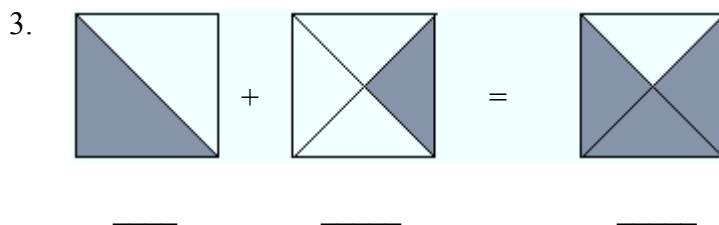
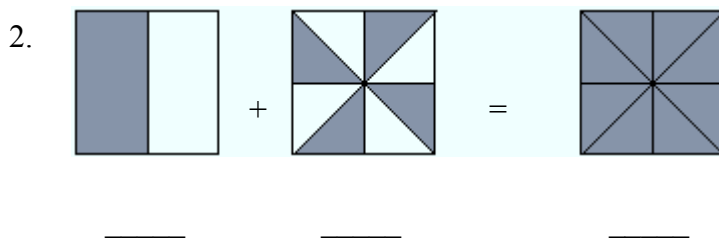
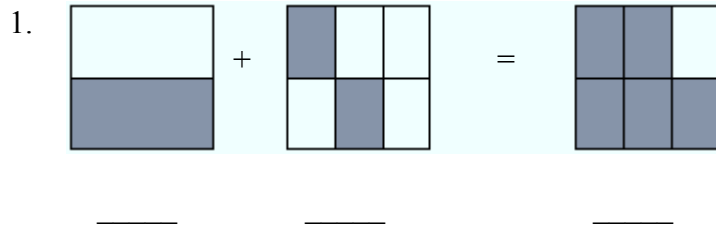
Directions: Write the addition sentences for the following diagram.



Lesson 26: Visualizing addition of dissimilar fractions.
(Competency II.B.1.1.3)

Exercise Set B

Directions: Write the addition sentences for the following diagram.



Lesson 27: Adding dissimilar fractions.
(Competency II.B.1.1.4)

Exercise Set A

Directions: Add the fractions. If the given sum is correct, put a check (✓) on the blank. If it is not, write the correct answer in lowest terms.

_____ 1. $\frac{2}{5} + \frac{1}{2} = \frac{9}{10}$

_____ 2. $\frac{4}{8} + \frac{2}{4} = 1$

_____ 3. $\frac{2}{3} + \frac{1}{5} = \frac{12}{15}$

_____ 4. $\frac{3}{9} + \frac{2}{3} = \frac{5}{12}$

_____ 5. $\frac{6}{8} + \frac{1}{3} = 1\frac{11}{12}$

_____ 6. $\frac{1}{2} + \frac{1}{4} = \frac{3}{4}$

_____ 7. $\frac{2}{5} + \frac{2}{4} = \frac{9}{10}$

_____ 8. $\frac{5}{8} + \frac{3}{4} = 1\frac{2}{8}$

_____ 9. $\frac{2}{3} + \frac{1}{2} + \frac{1}{4} = 1\frac{5}{12}$

_____ 10. $\frac{4}{5} + \frac{1}{10} + \frac{1}{2} = 1\frac{2}{3}$

Exercise Set B

Directions: Add the fractions. If the given sum is correct, put a check (✓) on the blank. If it is not, write the correct answer.

_____ 1. $\frac{3}{4} + \frac{1}{2} = 1\frac{1}{4}$

_____ 2. $\frac{1}{2} + \frac{4}{5} = 1\frac{3}{10}$

_____ 3. $\frac{1}{3} + \frac{2}{5} = \frac{11}{15}$

_____ 4. $\frac{2}{3} + \frac{4}{12} = \frac{1}{2}$

_____ 5. $\frac{2}{4} + \frac{2}{10} = \frac{7}{10}$

_____ 6. $\frac{4}{8} + \frac{1}{5} = \frac{5}{13}$

_____ 7. $\frac{1}{4} + \frac{6}{8} = 1$

_____ 8. $\frac{4}{6} + \frac{2}{3} = 1\frac{1}{3}$

_____ 9. $\frac{1}{5} + \frac{1}{3} + \frac{1}{6} = \frac{7}{10}$

_____ 10. $\frac{3}{8} + \frac{2}{3} + \frac{1}{4} = 1\frac{5}{24}$

Lesson 28: Adding whole number and mixed forms.
(Competency II.B.1.1.5)

Exercise Set A

Directions: Match the expression or addends in Column A with the sum in Column B.

A

B

1. $3 + 9\frac{3}{5}$
2. $8 + 4\frac{2}{4}$
3. $6 + 5\frac{11}{12}$
4. $7\frac{6}{9} + 5$
5. $2\frac{10}{25} + 10$
6. $10 + 1\frac{5}{4}$
7. $2 + 6\frac{8}{12}$
8. $5 + 3\frac{1}{3}$
9. $7\frac{1}{9} + 1$
10. $4\frac{7}{6} + 3$

- a. $12\frac{1}{2}$
- b. $12\frac{2}{3}$
- c. $12\frac{3}{5}$
- d. $12\frac{1}{4}$
- e. $11\frac{11}{12}$
- f. $12\frac{2}{5}$
- g. $8\frac{2}{3}$
- h. $8\frac{1}{9}$
- i. $8\frac{1}{6}$
- j. $8\frac{1}{3}$
- k. $8\frac{1}{2}$

Lesson 28: Adding whole number and mixed forms.
(Competency II.B.1.1.5)

Exercise Set B

Directions: Match the expression or addends in Column A with the sum in Column B.

A

1. $5 + 5\frac{1}{3}$
2. $4 + 6\frac{4}{5}$
3. $3 + 7\frac{10}{14}$
4. $2\frac{6}{15} + 8$
5. $1\frac{8}{5} + 8$
6. $8\frac{1}{4} + 3$
7. $10 + 1\frac{4}{5}$
8. $9\frac{8}{14} + 2$
9. $4\frac{12}{18} + 7$
10. $5\frac{9}{6} + 5$

B

- a. $10\frac{1}{3}$
- b. $10\frac{2}{5}$
- c. $10\frac{3}{5}$
- d. $10\frac{4}{5}$
- e. $10\frac{5}{7}$
- f. $11\frac{1}{2}$
- g. $11\frac{1}{4}$
- h. 11
- i. $11\frac{4}{7}$
- j. $11\frac{2}{3}$
- k. $11\frac{4}{5}$

Lesson 29: Adding mixed numbers and fractions.
(Competency II.B.1.1.6)

Exercise Set A

Directions: Find the sum. Reduce final answers to simplest form.

1. $3\frac{4}{5} + \frac{1}{5} = \underline{\hspace{2cm}}$

2. $9\frac{3}{4} + \frac{3}{4} = \underline{\hspace{2cm}}$

3. $9\frac{7}{10} + 3\frac{1}{10} = \underline{\hspace{2cm}}$

4. $\frac{4}{8} + 6\frac{6}{8} = \underline{\hspace{2cm}}$

5. $5\frac{4}{12} + 4\frac{1}{12} + 6\frac{3}{12} = \underline{\hspace{2cm}}$

6. $5\frac{1}{2} + \frac{2}{5} = \underline{\hspace{2cm}}$

7. $8\frac{2}{7} + \frac{1}{2} = \underline{\hspace{2cm}}$

8. $\frac{3}{4} + 15\frac{1}{12} = \underline{\hspace{2cm}}$

9. $25\frac{4}{6} + 9\frac{2}{3} = \underline{\hspace{2cm}}$

10. $10\frac{1}{2} + 6\frac{1}{4} + 30\frac{1}{6} = \underline{\hspace{2cm}}$

Exercise Set B

Directions: Find the sum. Reduce final answers to simplest form.

1. $5\frac{5}{8} + \frac{2}{8} = \underline{\hspace{2cm}}$

2. $\frac{4}{5} + 7\frac{4}{5} = \underline{\hspace{2cm}}$

3. $1\frac{5}{9} + 5\frac{4}{9} = \underline{\hspace{2cm}}$

4. $3\frac{7}{8} + \frac{3}{8} = \underline{\hspace{2cm}}$

5. $4\frac{2}{6} + 8\frac{1}{6} + 3\frac{4}{6} = \underline{\hspace{2cm}}$

6. $6\frac{2}{3} + \frac{1}{6} = \underline{\hspace{2cm}}$

7. $9\frac{3}{9} + \frac{1}{2} = \underline{\hspace{2cm}}$

8. $\frac{6}{10} + 12\frac{3}{5} = \underline{\hspace{2cm}}$

9. $13\frac{3}{4} + 8\frac{3}{5} = \underline{\hspace{2cm}}$

10. $8\frac{1}{3} + 7\frac{1}{4} + 12\frac{1}{5} = \underline{\hspace{2cm}}$

Lesson 30: Solving word problems involving addition of similar and dissimilar fractions and mixed numbers.
(Competency II.B.2.1)

Exercise Set A

Directions: Read and solve the following problems. Reduce final answers to lowest terms. Write your solutions and answers in your notebook.

1. Bernard keeps himself fit by jogging and going to the gym. On Saturdays, he spends $1\frac{1}{2}$ hours jogging and on Sundays, he spends $2\frac{1}{2}$ hours in the gym. How many hours does Bernard spend exercising every weekend?
2. Mother bought $\frac{3}{4}$ kilogram of pork and $\frac{3}{4}$ kilogram of chicken for her adobo. How many kilograms of meat did she buy?
3. Anne has $2\frac{1}{4}$ meters of ribbon. Bea has $4\frac{2}{5}$ meters more than Anne. How many meters of ribbon do Anne and Bea have together?
4. Jane bought $3\frac{5}{10}$ meters of cotton cloth and $4\frac{2}{8}$ meters of silk cloth. How many meters of cloth did Jane buy in all?
5. The Grade V pupils collected $28\frac{3}{4}$ kg of old newspapers, $19\frac{2}{3}$ kg of used plastic containers, and $12\frac{1}{2}$ kg of used bottles for recycling. How many kilograms of recyclable materials did they collect in all?

Lesson 30: Solving word problems involving addition of similar and dissimilar fractions and mixed numbers.
(Competency II.B.2.1)

Exercise Set B

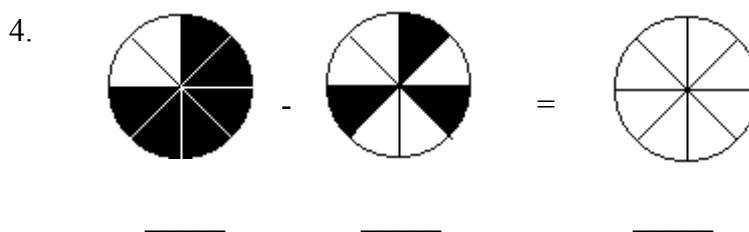
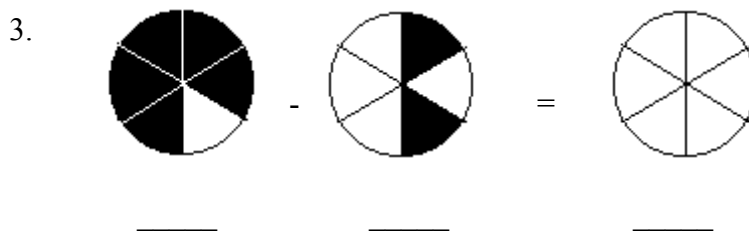
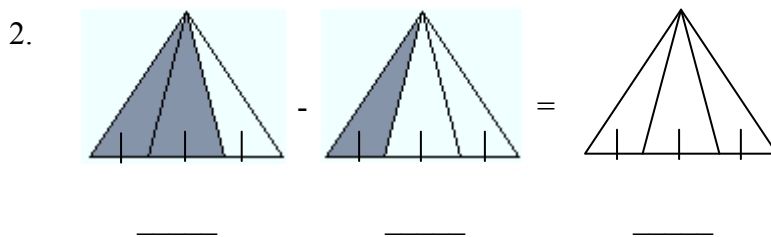
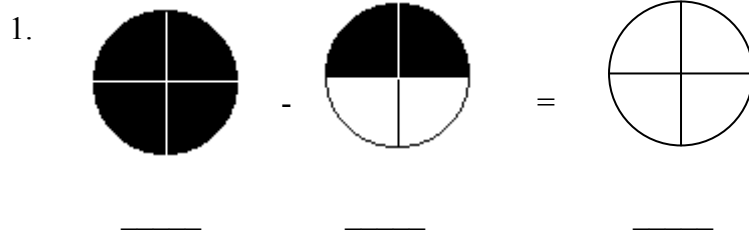
Directions: Read and solve the following problems. Reduce final answers to lowest terms. Write your solutions and answers in your notebook.

1. Angel drank $4\frac{1}{3}$ glasses of water before twelve noon and $5\frac{2}{3}$ glasses after twelve noon of the same day. How many glasses of water did she drink on that same day?
2. A boxes of apples weighs $5\frac{4}{16}$ kg. A boxes of oranges weighs $8\frac{8}{16}$ kg. How much do the two boxes weigh altogether?
3. Joyce helps her mother tend their store on weekends. She works in the store for $6\frac{1}{2}$ hours on Saturdays and $3\frac{3}{4}$ hours on Sundays. How many hours in all does Joyce work in their store on weekends?
4. A tank has $6\frac{1}{3}$ liters of gasoline. A man puts in $8\frac{4}{9}$ more liters of gasoline in the tank. How much gasoline is in the tank now?
5. Everyday we can save $2\frac{3}{4}$ gallons of water by using a basin for washing dishes and $1\frac{1}{2}$ gallons by turning off the faucet instead of letting the water run while brushing our teeth. We can also save $3\frac{4}{5}$ gallons of water by using recycled water to water our plants. How much water can we save daily by doing the alternative tasks mentioned?

Lesson 31: Visualizing subtraction of fractions.
(Competency II.C.1.1)

Exercise Set A

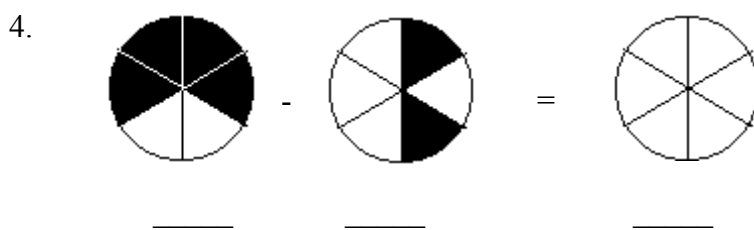
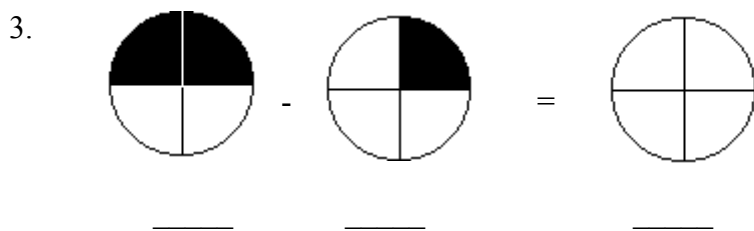
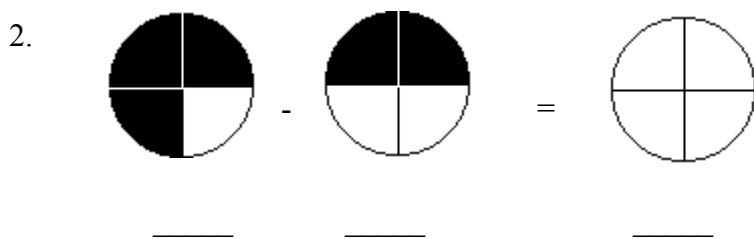
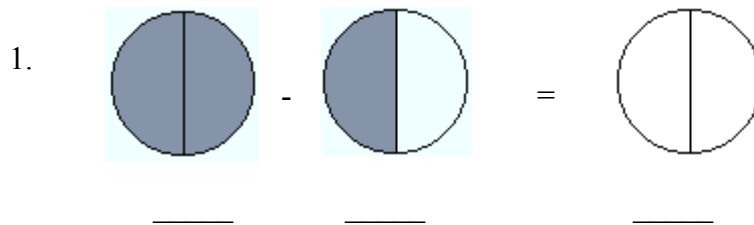
Directions: Write the subtraction sentence illustrated by each set of diagrams. Shade the last figure in each set to show the answer.



Lesson 31: Visualizing subtraction of fractions.
(Competency II.C.1.1)

Exercise Set B

Directions: Write the subtraction sentence illustrated by each set of diagrams. Shade the last figure in each set to show the answer.



Lesson 32: Subtracting whole numbers from mixed forms.
(Competency II.C.1.1.1)

Exercise Set A

Directions: Subtract the following equations. Reduce final answers to simplest form.

$$\begin{array}{r} 1. \quad - 14\frac{3}{5} \\ \underline{10} \end{array}$$

$$\begin{array}{r} 2. \quad - 25\frac{7}{8} \\ \underline{12} \end{array}$$

$$\begin{array}{r} 2. \quad - 34\frac{5}{6} \\ \underline{24} \end{array}$$

$$\begin{array}{r} 4. \quad - 47\frac{8}{9} \\ \underline{29} \end{array}$$

$$\begin{array}{r} 5. \quad - 61\frac{1}{3} \\ \underline{37} \end{array}$$

$$\begin{array}{r} 6. \quad - 59\frac{4}{6} \\ \underline{34} \end{array}$$

$$\begin{array}{r} 6. \quad - 73\frac{12}{15} \\ \underline{40} \end{array}$$

$$\begin{array}{r} 8. \quad - 88\frac{18}{20} \\ \underline{53} \end{array}$$

$$\begin{array}{r} 9. \quad - 92\frac{21}{35} \\ \underline{66} \end{array}$$

$$\begin{array}{r} 10. \quad - 108\frac{30}{48} \\ \underline{69} \end{array}$$

Exercise Set B

Directions: Subtract the following equations. Reduce final answers to simplest form.

$$\begin{array}{r} 1. \quad - 29\frac{4}{7} \\ \underline{7} \end{array}$$

$$\begin{array}{r} 2. \quad - 37\frac{8}{9} \\ \underline{16} \end{array}$$

$$\begin{array}{r} 3. \quad - 45\frac{1}{3} \\ \underline{11} \end{array}$$

$$\begin{array}{r} 4. \quad - 53\frac{5}{9} \\ \underline{31} \end{array}$$

$$\begin{array}{r} 5. \quad - 59\frac{1}{2} \\ \underline{22} \end{array}$$

$$\begin{array}{r} 6. \quad - 60\frac{8}{10} \\ \underline{29} \end{array}$$

$$\begin{array}{r} 7. \quad - 72\frac{15}{18} \\ \underline{17} \end{array}$$

$$\begin{array}{r} 8. \quad - 84\frac{14}{22} \\ \underline{38} \end{array}$$

$$\begin{array}{r} 9. \quad - 91\frac{10}{15} \\ \underline{44} \end{array}$$

$$\begin{array}{r} 10. \quad - 100\frac{24}{30} \\ \underline{49} \end{array}$$

Lesson 33: Subtracting fractions from whole numbers.
(Competency II.C.1.1.2)

Exercise Set A

Directions: Rename the minuend then find the difference. Reduce the answer to lowest terms.

$$\begin{array}{r} 8 \\ 1. \quad - \quad \frac{3}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ 2. \quad - \quad \frac{5}{8} \\ \hline \end{array}$$

$$\begin{array}{r} 17 \\ 3. \quad - \quad \frac{2}{9} \\ \hline \end{array}$$

$$\begin{array}{r} 29 \\ 4. \quad - \quad \frac{11}{16} \\ \hline \end{array}$$

$$\begin{array}{r} 35 \\ 5. \quad - \quad \frac{11}{22} \\ \hline \end{array}$$

$$\begin{array}{r} 42 \\ 6. \quad - \quad \frac{10}{12} \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ 7. \quad - \quad \frac{6}{18} \\ \hline \end{array}$$

$$\begin{array}{r} 43 \\ 8. \quad - \quad \frac{9}{15} \\ \hline \end{array}$$

$$\begin{array}{r} 50 \\ 9. \quad - \quad \frac{4}{7} \\ \hline \end{array}$$

$$\begin{array}{r} 71 \\ 10. \quad - \quad \frac{21}{28} \\ \hline \end{array}$$

Exercise Set B.

Directions: Rename the minuend then find the difference. Reduce the answer to lowest terms.

$$\begin{array}{r} 9 \\ 1. \quad - \quad \frac{2}{7} \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ 2. \quad - \quad \frac{1}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 19 \\ 3. \quad - \quad \frac{3}{14} \\ \hline \end{array}$$

$$\begin{array}{r} 23 \\ 4. \quad - \quad \frac{1}{12} \\ \hline \end{array}$$

$$\begin{array}{r} 37 \\ 5. \quad - \quad \frac{7}{14} \\ \hline \end{array}$$

$$\begin{array}{r} 41 \\ 6. \quad - \quad \frac{4}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 48 \\ 7. \quad - \quad \frac{6}{15} \\ \hline \end{array}$$

$$\begin{array}{r} 52 \\ 8. \quad - \quad \frac{18}{20} \\ \hline \end{array}$$

$$\begin{array}{r} 68 \\ 9. \quad - \quad \frac{2}{11} \\ \hline \end{array}$$

$$\begin{array}{r} 74 \\ 10. \quad - \quad \frac{16}{24} \\ \hline \end{array}$$

Lesson 34: Subtracts mixed numbers from whole numbers.
(Competency II.C.1.3)

Exercise Set A

Directions: Find the difference. Reduce final answers to lowest terms.

1. $2 - 1\frac{1}{2} = \underline{\hspace{2cm}}$

2. $5 - 3\frac{1}{4} = \underline{\hspace{2cm}}$

3. $4 - 1\frac{5}{6} = \underline{\hspace{2cm}}$

4. $10 - 4\frac{7}{8} = \underline{\hspace{2cm}}$

5. $3 - 2\frac{4}{5} = \underline{\hspace{2cm}}$

$$\begin{array}{r} 9 \\ - 7\frac{5}{7} \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ - 3\frac{2}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 5\frac{3}{8} \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 8\frac{3}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ - 6\frac{7}{8} \\ \hline \end{array}$$

Exercise Set B

Directions: Find the difference. Express your answers in lowest terms.

$$\begin{array}{r} 18 \\ - 12\frac{4}{8} \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ - 1\frac{1}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ - 3\frac{2}{10} \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 2\frac{3}{9} \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ - 3\frac{5}{8} \\ \hline \end{array}$$

$$\begin{array}{r} 20 \\ - 4\frac{5}{12} \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 7\frac{1}{2} \\ \hline \end{array}$$

$$\begin{array}{r} 14 \\ - 9\frac{3}{6} \\ \hline \end{array}$$

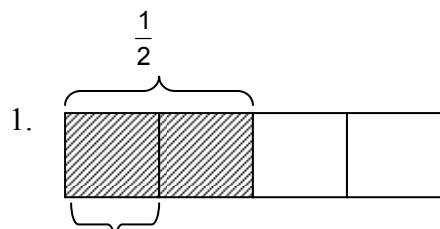
$$\begin{array}{r} 15 \\ - 11\frac{8}{12} \\ \hline \end{array}$$

$$\begin{array}{r} 17 \\ - 9\frac{3}{8} \\ \hline \end{array}$$

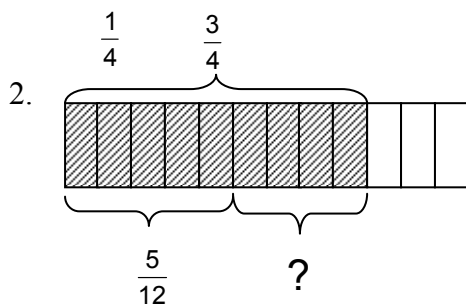
Lesson 35: Visualizes subtraction of dissimilar fractions
(Competency II.C.2)

Exercise Set A

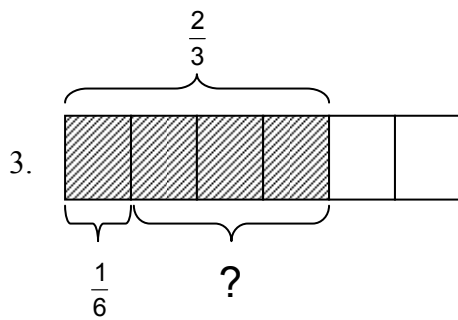
Directions: Study the figures given. Write the difference of the two fractions.



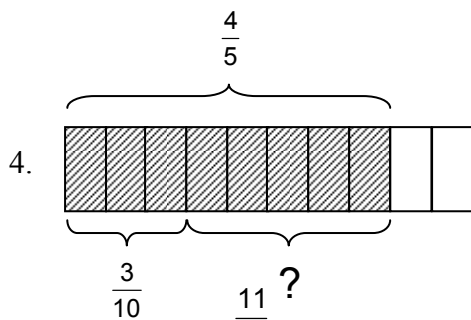
$$\frac{1}{2} - \frac{1}{4} = \underline{\hspace{2cm}}$$



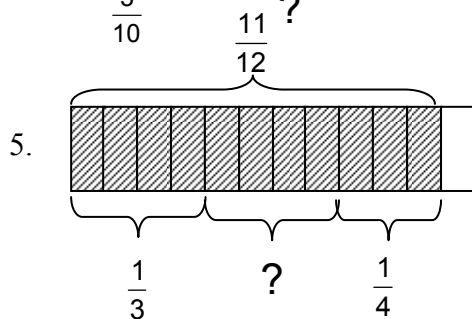
$$\frac{3}{4} - \frac{5}{12} = \underline{\hspace{2cm}}$$



$$\frac{2}{3} - \frac{1}{6} = \underline{\hspace{2cm}}$$



$$\frac{4}{5} - \frac{3}{10} = \underline{\hspace{2cm}}$$



$$\frac{11}{12} - \frac{1}{3} - \frac{1}{4} = \underline{\hspace{2cm}}$$

Lesson 35: Visualizes subtraction of dissimilar fractions:
(Competency II.C.2)

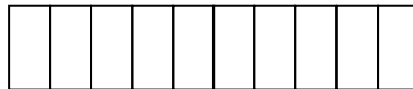
Exercise Set B

Directions: Shade the corresponding parts to show subtraction of fractions then write the difference.

1. $\frac{4}{7} - \frac{3}{14} = \underline{\hspace{2cm}}$



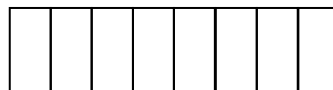
2. $\frac{1}{2} - \frac{2}{5} = \underline{\hspace{2cm}}$



3. $\frac{7}{9} - \frac{1}{3} = \underline{\hspace{2cm}}$



4. $\frac{5}{8} - \frac{2}{4} = \underline{\hspace{2cm}}$



5. $\frac{5}{6} - \frac{1}{12} = \underline{\hspace{2cm}}$



**Lesson 36: Subtracts fractions from mixed forms (dissimilar).
(Competency II.C.2.1)**

Exercise Set A

Directions: Find the difference. Reduce the final answer to lowest terms.

1. $12\frac{9}{10} - \frac{1}{5} = \underline{\hspace{2cm}}$

2. $15\frac{10}{12} - \frac{2}{3} = \underline{\hspace{2cm}}$

3. $4\frac{2}{3} - \frac{3}{5} = \underline{\hspace{2cm}}$

4. $3\frac{3}{5} - \frac{3}{7} = \underline{\hspace{2cm}}$

5. $8\frac{5}{6} - \frac{1}{3} = \underline{\hspace{2cm}}$

6. $4\frac{1}{2} - \frac{1}{4} = \underline{\hspace{2cm}}$

7. $10\frac{4}{5} - \frac{3}{4} = \underline{\hspace{2cm}}$

8. $4\frac{1}{4} - \frac{1}{2} = \underline{\hspace{2cm}}$

9. $13\frac{7}{9} - \frac{2}{3} = \underline{\hspace{2cm}}$

10. $6\frac{1}{2} - \frac{3}{9} = \underline{\hspace{2cm}}$

Exercise Set B

Directions: Subtract the following equations and simplify your final answer.

1.
$$\begin{array}{r} 16\frac{3}{4} \\ - \quad \frac{7}{12} \\ \hline \end{array}$$

2.
$$\begin{array}{r} 8\frac{2}{5} \\ - \quad \frac{5}{8} \\ \hline \end{array}$$

3.
$$\begin{array}{r} 4\frac{5}{6} \\ - \quad \frac{2}{3} \\ \hline \end{array}$$

4.
$$\begin{array}{r} 12\frac{2}{7} \\ - \quad \frac{1}{5} \\ \hline \end{array}$$

5.
$$\begin{array}{r} 10\frac{1}{2} \\ - \quad \frac{5}{7} \\ \hline \end{array}$$

6.
$$\begin{array}{r} 10\frac{5}{8} \\ - \quad \frac{1}{2} \\ \hline \end{array}$$

7.
$$\begin{array}{r} 5\frac{8}{9} \\ - \quad \frac{4}{5} \\ \hline \end{array}$$

8.
$$\begin{array}{r} 13\frac{2}{7} \\ - \quad \frac{4}{9} \\ \hline \end{array}$$

9.
$$\begin{array}{r} 7\frac{4}{6} \\ - \quad \frac{2}{8} \\ \hline \end{array}$$

10.
$$\begin{array}{r} 9\frac{1}{2} \\ - \quad \frac{3}{5} \\ \hline \end{array}$$

Lesson 37: Subtracts mixed forms from mixed forms with dissimilar fractions.
(Competency II.C.2.2)

Exercise Set A

Directions: Subtract and simplify the final answer.

$$1. \quad \begin{array}{r} 7\frac{10}{12} \\ - 2\frac{2}{8} \\ \hline \end{array}$$

$$6. \quad 4\frac{2}{5} - \frac{8}{10} = \underline{\hspace{2cm}}$$

$$2. \quad \begin{array}{r} 22\frac{9}{15} \\ - 18\frac{3}{9} \\ \hline \end{array}$$

$$7. \quad 5\frac{1}{3} - 2\frac{1}{2} = \underline{\hspace{2cm}}$$

$$3. \quad \begin{array}{r} 4\frac{15}{20} \\ - 2\frac{5}{10} \\ \hline \end{array}$$

$$8. \quad 10\frac{3}{10} - 1\frac{4}{5} = \underline{\hspace{2cm}}$$

$$4. \quad \begin{array}{r} 16\frac{7}{8} \\ - 12\frac{4}{10} \\ \hline \end{array}$$

$$9. \quad 6\frac{1}{3} - 1\frac{1}{5} = \underline{\hspace{2cm}}$$

$$5. \quad \begin{array}{r} 12\frac{9}{10} \\ - 6\frac{8}{10} \\ \hline \end{array}$$

$$10. \quad 3\frac{1}{6} - 1\frac{2}{3} = \underline{\hspace{2cm}}$$

Lesson 37: Subtracts mixed forms from mixed forms with dissimilar fractions.
(Competency II.C.2.2)

Exercise Set B

Directions. Find the difference. Reduce the final answers to lowest terms.

$$1. \quad \begin{array}{r} 7\frac{4}{5} \\ - 5\frac{3}{4} \\ \hline \end{array}$$

$$6. \quad \begin{array}{r} 4\frac{9}{14} \\ - 1\frac{3}{7} \\ \hline \end{array}$$

$$2. \quad \begin{array}{r} 10\frac{6}{8} \\ - 7\frac{3}{6} \\ \hline \end{array}$$

$$7. \quad \begin{array}{r} 11\frac{8}{12} \\ - 9\frac{3}{8} \\ \hline \end{array}$$

$$3. \quad \begin{array}{r} 16\frac{3}{4} \\ - 14\frac{1}{2} \\ \hline \end{array}$$

$$8. \quad \begin{array}{r} 7\frac{5}{6} \\ - 6\frac{1}{4} \\ \hline \end{array}$$

$$4. \quad \begin{array}{r} 9\frac{8}{10} \\ - 4\frac{2}{6} \\ \hline \end{array}$$

$$9. \quad \begin{array}{r} 3\frac{1}{2} \\ - 1\frac{2}{3} \\ \hline \end{array}$$

$$5. \quad \begin{array}{r} 8\frac{10}{12} \\ - 6\frac{1}{3} \\ \hline \end{array}$$

$$10. \quad \begin{array}{r} 12\frac{1}{2} \\ - 9\frac{5}{8} \\ \hline \end{array}$$

Lesson 38: Analyzes and solves word problems involving subtraction of fractions.
(Competency II.C.3)

Exercise Set A

Directions: Analyze each problem carefully and answer the questions that follow. Write your answers on the blanks provided.

Jonalyn baked 5 dozens of pan de sal. She sold $3\frac{3}{4}$ dozens. How many dozens of pan de sal were not sold?

1. What is asked in the problem? _____
2. What are the given facts? _____
3. What are the word clues? _____
4. What operation will solve the problem? _____
5. How will the number sentence / equation be written? _____
6. What is the solution? _____
7. What is the correct answer? _____
8. What operation will check the answer? _____
9. How will the checking be done? _____
10. In checking, what would be the answer? _____

Lesson 38: Analyzes and solves word problems involving subtraction of fractions.
(Competency II.C.3)

Exercise Set B

Directions: Read and solve the following problems. Reduce final answers to lowest terms.

1. A man harvested $12\frac{1}{4}$ kilograms of mangoes. He sold $9\frac{3}{5}$ kg and brought the rest home. How many kilograms were brought home for his family? _____
2. Beth used $5\frac{3}{4}$ meters of cloth for curtains. She had bought 8 meters. How many meters were not used for curtains? _____
3. Annie cut $9\frac{5}{6}$ meters of lace from a roll of $15\frac{1}{3}$ meters. How long is the remaining lace? _____
4. Lesley baked a cake. Her sister ate $\frac{1}{4}$ of it and her brother ate $\frac{3}{10}$ of it. How much more was eaten by her brother than her sister? _____
5. Eva had $8\frac{1}{4}$ meters of cloth. Benny asked for $\frac{3}{4}$ m for the project in EPP. How many meters were left with Evas? _____

Lesson 39: Solves 2-step word problems involving addition and subtraction of fractions.
(Competency II.C.4.1)

Exercise Set A

Directions: Work with a partner then solve each problem. Write the final answers to lowest terms.

1. Mother prepared 6 kilograms of dressed chicken. She cooked $2\frac{1}{2}$ kg on Wednesday and $2\frac{1}{3}$ kg on Friday. How many kilograms of chicken were not cooked by Friday? _____
2. A container of vinegar contains $4\frac{2}{3}$ liters. Rose poured $1\frac{1}{3}$ liters into one bottle and $1\frac{1}{2}$ liters into another bottle. How much vinegar was left in the original container? _____
3. Jessie brought home a box of pizza. Rica ate $\frac{1}{3}$ of it and Jane ate $\frac{4}{6}$. How much of the pizza was left? _____
4. The sum of all the sides of a triangle is 82 centimeters. One side measures $35\frac{2}{5}$ centimeters. Another side measures $30\frac{1}{5}$ centimeters. How many centimeters is the third side? _____
5. Amy sold $3\frac{1}{4}$ kilograms of pepper today and had $5\frac{1}{2}$ kilograms of pepper left by the end of the day. How many kilograms did Amy have at the start of the day?

Lesson 39: Solves 2-step word problems involving addition and subtraction of fractions.
(Competency II.C.4.1)

Exercise Set B

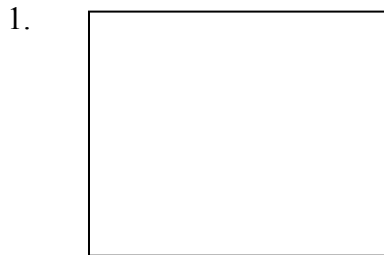
Directions: Work with a partner then solve each problem. Write the final answers to lowest terms.

1. Nancy prepared $6\frac{3}{4}$ kilograms of chicken legs and wings for their beach party. If she cooked $2\frac{1}{3}$ kg of chicken legs and $2\frac{3}{4}$ kg of chicken wings, how many kilograms were left uncooked? _____
2. The Math Club Officers had a field trip and brought with them 4 orders of family sized-pizza. On their way to a contest, they ate $\frac{8}{14}$ of a pie. On their way home, they ate $1\frac{6}{7}$ of it. How much pizza was left? _____
3. Father has $2\frac{4}{6}$ hectares of farmland. Corn is planted on the $\frac{2}{3}$ hectare, camote on $\frac{1}{3}$ hectare and different kinds of vegetables on the rest. What part of the farm is planted with the other kinds of vegetables? _____
4. Mang Tasyo harvested $25\frac{1}{4}$ kilograms of pepper on the first day and $16\frac{1}{3}$ kg on the second day. He sold $35\frac{1}{2}$ kg and gave the rest to his neighbors. How many kilograms were given to his neighbors? _____

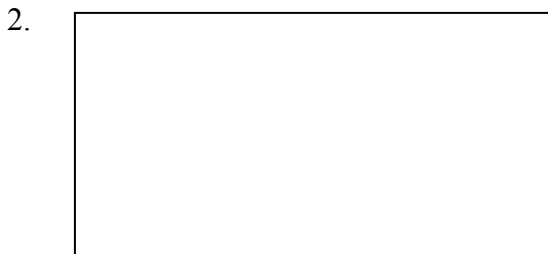
Lesson 40: Visualizes multiplication of fractions.
(Competency II.D.1.1)

Exercise Set A

Directions: Do what you are told.



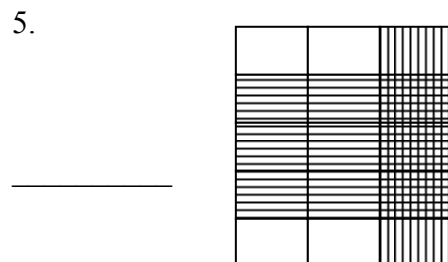
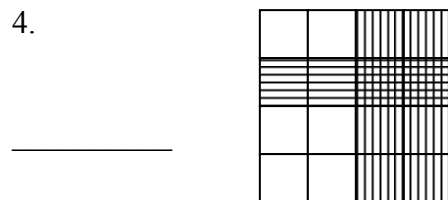
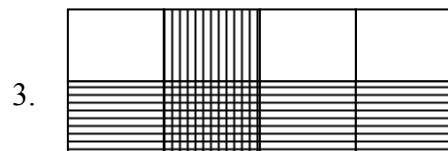
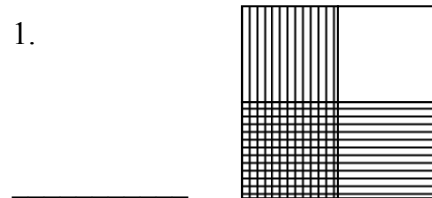
- shade $\frac{1}{2}$ of the figure
- then shade $\frac{1}{3}$ of the shade region
- the double shaded region represents _____ of the whole



- shade $\frac{2}{3}$ of the figure above
- Get $\frac{3}{4}$ of the shaded figure by shading in the opposite direction.

Exercise Set B

Directions: Write a mathematical expression of the given illustrations. Write your answer on the blank.



**Lesson 41: Translates the Mathematical phrases to expressions
(Competency II.D.1.2.1)**

Exercise Set A

Directions: Translate the mathematical expression into equations.

1. $\frac{1}{3}$ of $\frac{1}{2}$ _____

2. $\frac{2}{4}$ of $\frac{1}{4}$ _____

3. $\frac{1}{2}$ of $\frac{1}{5}$ _____

4. $\frac{1}{2}$ of $\frac{2}{3}$ _____

5. $\frac{3}{4}$ of $\frac{1}{2}$ _____

6. $\frac{1}{6}$ of $\frac{1}{2}$ _____

7. $\frac{2}{3}$ of $\frac{1}{4}$ _____

8. $\frac{2}{5}$ of $\frac{1}{2}$ _____

9. $\frac{2}{4}$ of $\frac{1}{2}$ _____

10. $\frac{1}{2}$ of $\frac{1}{8}$ _____

Lesson 41: Translates the Mathematical phrases to expressions
(Competency II.D.1.2.1)

Exercise Set B

Directions: Match the math phrases to/with the expression. Encircle the letter of the correct answer.

1. $\frac{2}{8}$ of $\frac{1}{2}$ a. $\frac{2}{8} \times \frac{1}{2}$ b. $\frac{2}{8} \div \frac{2}{3}$ c. $\frac{2}{8} + \frac{1}{2}$

2. $\frac{1}{2}$ of $\frac{3}{4}$ a. $\frac{1}{2} \div \frac{3}{4}$ b. $\frac{1}{2} + \frac{3}{4}$ c. $\frac{1}{2} \times \frac{3}{4}$

3. $\frac{1}{3}$ of $\frac{2}{5}$ a. $\frac{1}{3} + \frac{2}{5}$ b. $\frac{1}{3} \times \frac{2}{5}$ c. $\frac{1}{3} - \frac{2}{5}$

4. $\frac{2}{5}$ of $\frac{1}{6}$ a. $\frac{2}{5} - \frac{1}{6}$ b. $\frac{2}{5} + \frac{1}{6}$ c. $\frac{2}{5} \times \frac{1}{6}$

5. $\frac{3}{4}$ of $\frac{1}{2}$ a. $\frac{3}{4} \div \frac{1}{2}$ b. $\frac{3}{4} \times \frac{1}{2}$ c. $\frac{3}{4} + \frac{1}{2}$

6. $\frac{3}{7}$ of $\frac{1}{3}$ a. $\frac{3}{7} \times \frac{1}{3}$ b. $\frac{3}{7} \div \frac{1}{3}$ c. $\frac{3}{7} - \frac{1}{3}$

7. $\frac{2}{9}$ of $\frac{1}{3}$ a. $\frac{2}{9} \div \frac{1}{3}$ b. $\frac{2}{9} + \frac{1}{3}$ c. $\frac{2}{9} \times \frac{1}{3}$

8. $\frac{3}{8}$ of $\frac{2}{3}$ a. $\frac{3}{8} - \frac{2}{3}$ b. $\frac{3}{8} \times \frac{2}{3}$ c. $\frac{3}{8} + \frac{2}{3}$

9. $\frac{4}{7}$ of $\frac{5}{6}$ a. $\frac{4}{7} \times \frac{5}{6}$ b. $\frac{4}{7} \div \frac{5}{6}$ c. $\frac{4}{7} - \frac{5}{6}$

10. $\frac{5}{8}$ of $\frac{3}{4}$ a. $\frac{5}{8} \div \frac{3}{4}$ b. $\frac{5}{8} - \frac{3}{4}$ c. $\frac{5}{8} \times \frac{3}{4}$

Lesson 42: Multiplies a fraction by another fraction.
(Competency II.D.1.3.1)

Exercise Set A

Directions: Write the equation for each Math sentence then solve for the product. Write the final answer in lowest terms.

1. What is $\frac{1}{4}$ of $\frac{2}{9}$? _____
2. What is $\frac{2}{3}$ of $\frac{3}{5}$? _____
3. What is $\frac{3}{4}$ of $\frac{2}{8}$? _____
4. What is $\frac{1}{5}$ of $\frac{4}{8}$? _____
5. What is $\frac{2}{5}$ of $\frac{5}{9}$? _____
6. What is $\frac{7}{8}$ of $\frac{1}{5}$? _____
7. What is $\frac{1}{3}$ of $\frac{1}{5}$? _____
8. What is $\frac{2}{5}$ of $\frac{1}{6}$? _____
9. What is $\frac{3}{5}$ of $\frac{1}{4}$? _____
10. What is $\frac{1}{3}$ of $\frac{6}{8}$? _____

Exercise Set B

Directions: Find the product. Reduce final answers to lowest terms.

1. $\frac{1}{4} \times \frac{2}{3} =$ _____
2. $\frac{1}{3} \times \frac{3}{8} =$ _____
3. $\frac{1}{2} \times \frac{3}{4} =$ _____
4. $\frac{3}{8} \times \frac{2}{5} =$ _____
5. $\frac{2}{9} \times \frac{2}{7} =$ _____
6. $\frac{3}{5} \times \frac{2}{8} =$ _____
7. $\frac{2}{3} \times \frac{3}{7} =$ _____
8. $\frac{1}{2} \times \frac{1}{3} =$ _____
9. $\frac{3}{4} \times \frac{2}{3} =$ _____
10. $\frac{2}{3} \times \frac{6}{8} =$ _____

Lesson 43: Multiplies a fraction by a whole number.
(Competency II.D.1.3.2)

Exercise Set A

Directions: Find the product. Reduce final answers to lowest terms.

1. $10 \times \frac{1}{2} = \underline{\hspace{2cm}}$

2. $20 \times \frac{2}{5} = \underline{\hspace{2cm}}$

3. $18 \times \frac{2}{9} = \underline{\hspace{2cm}}$

4. $4 \times \frac{3}{8} = \underline{\hspace{2cm}}$

5. $9 \times \frac{1}{6} = \underline{\hspace{2cm}}$

6. $\frac{2}{10} \times 5 = \underline{\hspace{2cm}}$

7. $\frac{3}{8} \times 4 = \underline{\hspace{2cm}}$

8. $\frac{7}{8} \times 12 = \underline{\hspace{2cm}}$

9. $\frac{1}{8} \times 8 = \underline{\hspace{2cm}}$

10. $\frac{3}{4} \times 15 = \underline{\hspace{2cm}}$

Exercise Set B

Directions: Find the product. Reduce the final answers to lowest terms.

1. $6 \times \frac{2}{3} = \underline{\hspace{2cm}}$

2. $9 \times \frac{3}{4} = \underline{\hspace{2cm}}$

3. $4 \times \frac{5}{6} = \underline{\hspace{2cm}}$

4. $6 \times \frac{4}{7} = \underline{\hspace{2cm}}$

5. $8 \times \frac{4}{9} = \underline{\hspace{2cm}}$

6. $\frac{5}{12} \times 48 = \underline{\hspace{2cm}}$

7. $\frac{6}{7} \times 4 = \underline{\hspace{2cm}}$

8. $\frac{3}{5} \times 20 = \underline{\hspace{2cm}}$

9. $\frac{5}{6} \times 10 = \underline{\hspace{2cm}}$

10. $\frac{1}{6} \times 24 = \underline{\hspace{2cm}}$

Lesson 44: Multiplies a mixed form by a fraction.
(Competency II.D.1.3.3)

Exercise Set A

Directions: Find the product. Reduce your final answers to lowest terms. You may use cancellation to simplify factors.

1. $\frac{3}{4} \times 2\frac{4}{6} = \underline{\hspace{2cm}}$

2. $\frac{1}{2} \times 3\frac{1}{3} = \underline{\hspace{2cm}}$

3. $\frac{2}{5} \times 4\frac{1}{2} = \underline{\hspace{2cm}}$

4. $\frac{3}{7} \times 5\frac{3}{4} = \underline{\hspace{2cm}}$

5. $\frac{4}{5} \times 7\frac{1}{4} = \underline{\hspace{2cm}}$

6. $8\frac{1}{2} \times \frac{3}{5} = \underline{\hspace{2cm}}$

7. $9\frac{4}{7} \times \frac{14}{67} = \underline{\hspace{2cm}}$

8. $2\frac{3}{5} \times \frac{1}{9} = \underline{\hspace{2cm}}$

9. $3\frac{1}{4} \times \frac{2}{3} = \underline{\hspace{2cm}}$

10. $4\frac{1}{5} \times \frac{8}{3} = \underline{\hspace{2cm}}$

Lesson 44: Multiplies a mixed form by a fraction.
(Competency II.D.1.3.3)

Exercise Set B

Directions: Draw a line to connect the factors in Column A with the product in Column B.

A

1. $\frac{1}{2} \times 2\frac{1}{4} = n$

2. $\frac{2}{3} \times 4\frac{1}{2} = n$

3. $\frac{3}{4} \times 4\frac{4}{5} = n$

4. $\frac{1}{3} \times 2\frac{2}{6} = n$

5. $\frac{3}{8} \times 3\frac{1}{5} = n$

6. $6\frac{1}{3} \times \frac{1}{2} = n$

7. $3\frac{1}{2} \times \frac{1}{3} = n$

8. $5\frac{1}{4} \times \frac{2}{5} = n$

9. $1\frac{3}{4} \times \frac{1}{5} = n$

10. $5\frac{2}{5} \times \frac{7}{3} = n$

B

a. $\frac{7}{9}$

b. 3

c. $3\frac{1}{6}$

d. $1\frac{1}{6}$

e. $1\frac{1}{8}$

f. $1\frac{1}{5}$

g. $\frac{7}{20}$

h. $12\frac{3}{5}$

i. $2\frac{1}{10}$

j. $3\frac{3}{5}$

Lesson 45: Multiplies mixed form by a mixed form.
(Competency II.D.1.3.4)

Exercise Set A

Directions: Find the products. Reduce final answers to in lowest terms.

1. $2\frac{2}{3} \times 2\frac{1}{2} = \underline{\hspace{2cm}}$

2. $5\frac{1}{2} \times 3\frac{2}{7} = \underline{\hspace{2cm}}$

3. $3\frac{2}{5} \times 2\frac{1}{2} = \underline{\hspace{2cm}}$

4. $2\frac{4}{5} \times 1\frac{3}{7} = \underline{\hspace{2cm}}$

5. $6\frac{1}{4} \times 5\frac{3}{5} = \underline{\hspace{2cm}}$

6. $1\frac{1}{2} \times 2\frac{1}{3} = \underline{\hspace{2cm}}$

7. $2\frac{3}{7} \times 4\frac{2}{3} = \underline{\hspace{2cm}}$

8. $4\frac{3}{5} \times 1\frac{2}{4} = \underline{\hspace{2cm}}$

9. $6\frac{3}{4} \times 5\frac{1}{3} = \underline{\hspace{2cm}}$

10. $3\frac{4}{7} \times 10\frac{1}{2} = \underline{\hspace{2cm}}$

Exercise Set B

Directions: Find the products. Reduce final answers to in lowest terms.

1. $4\frac{2}{3} \times 1\frac{1}{5} = \underline{\hspace{2cm}}$

2. $1\frac{1}{3} \times 1\frac{2}{7} = \underline{\hspace{2cm}}$

3. $4\frac{2}{5} \times 1\frac{9}{11} = \underline{\hspace{2cm}}$

4. $2\frac{1}{4} \times 6\frac{2}{3} = \underline{\hspace{2cm}}$

5. $4\frac{3}{5} \times 3\frac{1}{2} = \underline{\hspace{2cm}}$

6. $3\frac{1}{4} \times 2\frac{1}{4} = \underline{\hspace{2cm}}$

7. $3\frac{9}{13} \times 1\frac{1}{12} = \underline{\hspace{2cm}}$

8. $9\frac{3}{7} \times 2\frac{1}{3} = \underline{\hspace{2cm}}$

9. $6\frac{3}{4} \times 3\frac{1}{9} = \underline{\hspace{2cm}}$

10. $2\frac{4}{6} \times 1\frac{2}{18} = \underline{\hspace{2cm}}$

Lesson 46: Multiplies fractional units mentally.
(Competency II.D.2)

Exercise Set A

Directions: Solve mentally. Give the product of each pair of fractions. Express final answers in lowest terms.

1. $\frac{1}{2} \times \frac{2}{3} = \underline{\hspace{2cm}}$

2. $\frac{1}{4} \times \frac{2}{3} = \underline{\hspace{2cm}}$

3. $\frac{1}{3} \times \frac{1}{2} = \underline{\hspace{2cm}}$

4. $\frac{1}{2} \times \frac{1}{4} = \underline{\hspace{2cm}}$

5. $8 \times \frac{2}{4} = \underline{\hspace{2cm}}$

6. $5 \times \frac{2}{3} = \underline{\hspace{2cm}}$

7. $7 \times \frac{1}{2} = \underline{\hspace{2cm}}$

8. $1\frac{2}{4} \times \frac{1}{2} = \underline{\hspace{2cm}}$

9. $1\frac{2}{7} \times \frac{1}{2} = \underline{\hspace{2cm}}$

10. $1\frac{3}{5} \times \frac{2}{4} = \underline{\hspace{2cm}}$

Exercise Set B

Directions: Solve mentally. Give the product of each pair of fractions. Express final answers in lowest terms.

1. $\frac{2}{5} \times \frac{1}{2} = \underline{\hspace{2cm}}$

2. $\frac{3}{5} \times \frac{2}{5} = \underline{\hspace{2cm}}$

3. $\frac{4}{9} \times \frac{3}{6} = \underline{\hspace{2cm}}$

4. $\frac{2}{4} \times \frac{2}{4} = \underline{\hspace{2cm}}$

5. $4 \times \frac{3}{4} = \underline{\hspace{2cm}}$

6. $6 \times \frac{2}{6} = \underline{\hspace{2cm}}$

7. $8 \times \frac{1}{6} = \underline{\hspace{2cm}}$

8. $\frac{2}{8} \times 1\frac{2}{6} = \underline{\hspace{2cm}}$

9. $\frac{1}{3} \times 1\frac{1}{5} = \underline{\hspace{2cm}}$

10. $\frac{2}{5} \times 2\frac{2}{3} = \underline{\hspace{2cm}}$

Lesson 47: Analyzes and solves word problems involving multiplication of fractions.
(Competency II.D.3.1)

Exercise Set A

Directions: Read and analyze each problem carefully. Answer the questions below.

Bert had $2\frac{1}{4}$ liters of paint. He used $\frac{1}{3}$ of it to paint their fence. How much paint did he use?

1. What is asked in the problem? _____
2. What are the given facts? _____
3. What operation is needed to solve the problem? _____
4. What is the multiplication sentence? _____
5. How much paint did he use? _____

The school gardener can weed $10\frac{2}{3}$ sq. meters of lawn per hour. Assuming he keeps the same pace, how many sq. meters can he clean in $1\frac{3}{4}$ hours?

1. What is asked? _____
2. What are given? _____
3. What operation will be used? _____
4. What is the multiplication sentence? _____
5. What is the final answer? _____

Lesson 47: Analyzes and solves word problems involving multiplication of fractions.
(Competency II.D.3.1)

Exercise Set B

Directions: Solve the following problems correctly. Write your solutions and answers on your notebook.

1. John took $5\frac{1}{2}$ hours to overhaul an engine of a motorcycle. $\frac{1}{3}$ of the time was spent cleaning the engine. How many hours were spent in cleaning the engine?
2. Joel biked for $3\frac{1}{4}$ hours. Noel biked $\frac{1}{2}$ of an hour more than Joel. How many hours did Noel bike?
3. After driving $\frac{4}{5}$ of the distance to school, Chris' car had a flat tire of his car. If the distance from his house to school is 12 km, how far had Chris traveled before he had the flat tire?
4. Father owned a lot that was $2\frac{3}{5}$ hectares in area. He used $\frac{2}{3}$ of the lot for planting corn. What part of the lot is planted with corn?
5. Grace answered $\frac{3}{4}$ of the test correctly. If there are 40 items, how many items did she answer correctly?

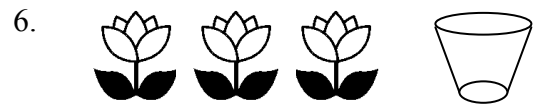
Lesson 48: Visualizes the ratio of two or more given sets of objects.
(Competency II.E.1.1)

Exercise Set A

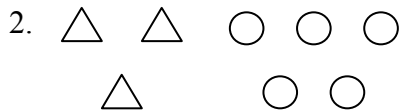
Directions: Write the ratio of the given objects on the blanks provided.



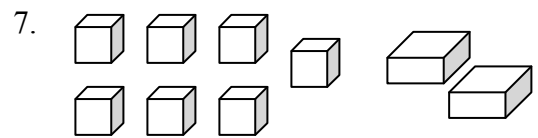
Hearts to Squares



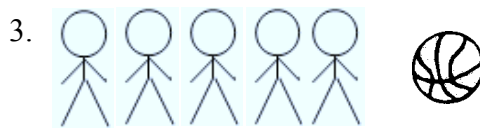
Flowers to Glass



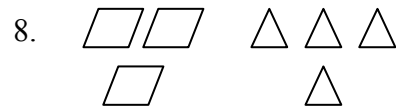
Triangles to Circles



Cubes to Rectangular prisms



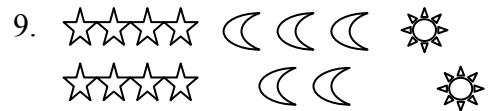
Boys to Ball



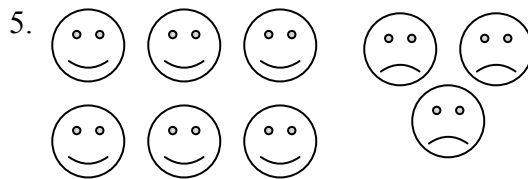
Rhombus to Triangles



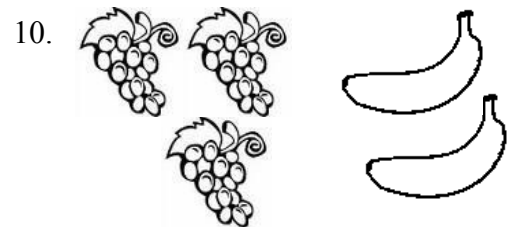
Bananas to Mangoes to Oranges



Stars to Moons to Suns



Smiley Faces to Frowning Faces

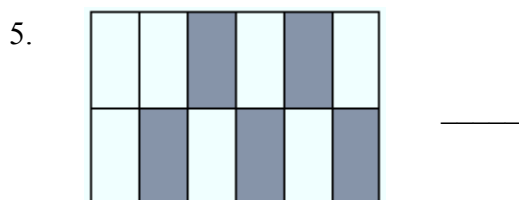
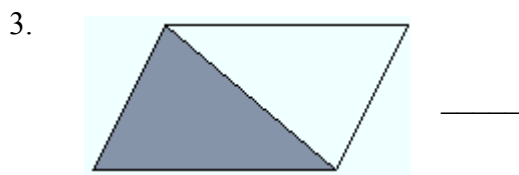
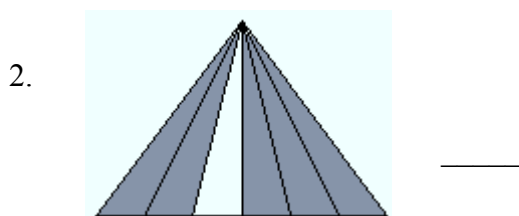
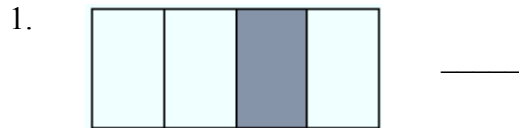


Grapes to Bananas

Lesson 48: Visualizes the ratio of two given sets of objects.
(Competency II.E.1.1)

Exercise Set B

Directions: Write the ratio of the un-shaded to the shaded parts on the blank.



Lesson 49: Expresses the ratio of two numbers by using either a colon or a fraction.
(Competency II.E.1.2)

Exercise Set A

Directions: Write the ratio asked in two ways on the space provided.



Ratio of baskets to mangoes _____



Ratio of chairs to books _____



Ratio of boys to girls _____



Ratio of books and students _____

5. Coach Mario bought 10 volleyballs and 12 basketballs for the team
 Ratio of 10 volleyballs to 12 basketballs _____

6. In Lupang Pangako Elementary School, a class with 80 pupils has two teachers.
 Ratio of 2 teachers to 80 pupils _____

7. In a game, every player makes 4 points.
 Ratio of points to player _____

8. Mrs. Flores' 10 chickens lay a total of three trays of eggs
 Ratio of chickens to trays of eggs _____

9. Mrs. Rebanal bought 24 apples and 7 oranges.
 Ratio of apples to oranges _____

10. There are 7 days in one week.
 Ratio of days to week _____

Lesson 49: Expresses the ratio of two numbers by using either a colon or a fraction.
(Competency II.E.1.2)

Exercise Set B

Directions: Write the ratio in simplest form using a colon and using the/in form.

	Colon	Fraction
1. 30 is to 180	_____	_____
2. 8 is to 2	_____	_____
3. 16 is to 10	_____	_____
4. 4 is to 6	_____	_____
5. 7 is to 21	_____	_____
6. 14 is to 28	_____	_____
7. 5 is to 20	_____	_____
8. 6 is to 9	_____	_____
9. 4 is to 12	_____	_____
10. 12 is to 15	_____	_____

Lesson 50: Renames in decimal form fractions whose denominators are powers of 10.
(Competency II.F.1.1)

Exercise Set A

Directions: Rename the following items as decimals.

1. $\frac{3}{10} = \underline{\hspace{2cm}}$
2. $\frac{56}{100} = \underline{\hspace{2cm}}$
3. $\frac{5}{100} = \underline{\hspace{2cm}}$
4. $\frac{8}{10} = \underline{\hspace{2cm}}$
5. $\frac{35}{1000} = \underline{\hspace{2cm}}$

Directions: Rename the following items as fractions. Write the final answers as fractions in lowest terms.

6. $0.9 = \underline{\hspace{2cm}}$
7. $0.04 = \underline{\hspace{2cm}}$
8. $0.65 = \underline{\hspace{2cm}}$
9. $0.133 = \underline{\hspace{2cm}}$
10. $0.0735 = \underline{\hspace{2cm}}$

Exercise Set B

Directions: Express each fraction in decimal form.

1. $\frac{4}{10} = \underline{\hspace{2cm}}$
2. $\frac{11}{100} = \underline{\hspace{2cm}}$
3. $\frac{81}{1000} = \underline{\hspace{2cm}}$
4. $\frac{55}{100000} = \underline{\hspace{2cm}}$
5. $\frac{6}{1000} = \underline{\hspace{2cm}}$
6. $\frac{12}{10000} = \underline{\hspace{2cm}}$
7. $\frac{37}{1000} = \underline{\hspace{2cm}}$
8. $\frac{15}{100} = \underline{\hspace{2cm}}$
9. $\frac{9}{10} = \underline{\hspace{2cm}}$
10. $\frac{27}{100} = \underline{\hspace{2cm}}$

**Lesson 51: Gives the place value of each digit of a given decimal.
(Competency II.F.1.2)**

Exercise Set A

Directions: Write the place value of the underlined digit.

1. 0.859 _____

2. 0.567 _____

3. 0.538 _____

4. 0.075 _____

5. 0.036 _____

6. 48.345 _____

7. 1.3469 _____

8. 6.6954 _____

9. 5.18765 _____

10. 4.09876 _____

Exercise Set B

Directions: Write the digits in the following place values.

1. 7.946

_____ thousandths

_____ tenths

_____ hundredths

2. 1.42567

_____ hundredths

_____ ten thousandths

_____ thousandths

3. 0.7654

_____ hundredths

_____ thousandths

_____ tenths

4. 5.6789

_____ ten thousandths

_____ hundredths

_____ thousandths

5. 0.1234

_____ tenths

_____ thousandths

_____ hundredths

Lesson 52: Rounds decimals to the nearest tenths, hundredths and thousandths.
(Competency II.F.2)

Exercise Set A

Directions: Encircle the correct rounded number in each item.

1. $0.\underline{8}37 \longrightarrow$ 0.87 0.83 0.84
2. $0.\underline{6}75 \longrightarrow$ 0.67 0.7 0.6
3. $0.\underline{5}48 \longrightarrow$ 0.5 0.54 0.58
4. $0.47\underline{8}6 \longrightarrow$ 0.479 0.56 0.478
5. $0.56\underline{7}3 \longrightarrow$ 0.56 0.567 0.573
6. $1.5\underline{4}2 \longrightarrow$ 1.5 1.543 1.54
7. $5.64\underline{3}9 \longrightarrow$ 5.64 5.644 5.643
8. $1.23\underline{9}1 \longrightarrow$ 1.24 1.23 1.22
9. $0.\underline{6}62 \longrightarrow$ 0.66 0.7 0.62
10. $2.67\underline{8}9 \longrightarrow$ 2.67 2.678 2.679

Lesson 52: Rounds decimals to the nearest tenths, hundredths and thousandths.
(Competency II.F.2)

Exercise Set B

Directions: Round each decimal to the indicated place value.

	Tenths	Hundredths	Thousandths
1. 0.3124	_____	_____	_____
2. 0.1648	_____	_____	_____
3. 0.5842	_____	_____	_____
4. 0.7313	_____	_____	_____
5. 0.5286	_____	_____	_____
6. 0.6782	_____	_____	_____
7. 0.2837	_____	_____	_____
8. 0.5258	_____	_____	_____
9. 0.1374	_____	_____	_____
10. 0.0946	_____	_____	_____

Lesson 53: Adds decimals through thousandths without and with regrouping.
(Competency II.G.1)

Exercise Set A

Directions: Write the decimals in column form and find the sum.

1. $0.213 + 0.542 =$ _____
2. $0.6 + 10.23 =$ _____
3. $0.45 + 0.346 =$ _____
4. $0.714 + 0.152 =$ _____
5. $0.6 + 0.241 =$ _____
6. $0.549 + 0.97 =$ _____
7. $0.92 + 0.648 + 0.34 =$ _____
8. $0.6 + 0.485 + 0.693 + 6.2 =$ _____
9. $0.243 + 0.567 + 0.123 + 0.6 =$ _____
10. $0.98 + 0.143 + 0.67 + 0.8 =$ _____

Exercise Set B

Directions: Write the decimals in column and find the sum.

1. $0.4 + 0.52 =$ _____
2. $0.24 + 0.437 =$ _____
3. $0.5 + 0.196 =$ _____
4. $0.124 + 0.57 =$ _____
5. $0.94 + 0.028 =$ _____
6. $0.481 + 0.964 =$ _____
7. $0.764 + 0.81 =$ _____
8. $0.59 + 0.468 =$ _____
9. $0.17 + 0.943 =$ _____
10. $0.9 + 0.8 =$ _____

Lesson 54: Adds mixed decimals with regrouping.
(Competency II.G.2)

Exercise Set A

Directions: Read each statement carefully to find the sum. Show your solution in getting the correct answer.

1. If 5.917 is added to 8.23, what will be the sum?
2. If 6.64 is added to 4.752, the sum would be equal to what number?
3. What will be the sum of 7.32 and 5.59?
4. Find the sum of 4.678 and 1.985.
5. The sum of 24.5 and 73.56 is equal to _____.
6. The sum of 4.762 and 1.58 is what number?
7. What will be the sum if 37.789 is added to 2.732?
8. What will be the sum if 8.53 is added to 9.45?
9. If 9.5 is added to 8.765, the sum would be equal to _____.
10. Find the sum of 8.18 and 6.543.

Lesson 54: Adds mixed decimals with regrouping.
(Competency II.G.2)

Exercise Set B

Directions: Find the sum.

1. $4.782 + 9.48 = \underline{\hspace{2cm}}$

6.
$$\begin{array}{r} + 2.458 \\ \underline{1.732} \end{array}$$

2. $46.789 + 3.653 = \underline{\hspace{2cm}}$

7.
$$\begin{array}{r} + 7.365 \\ \underline{9.8} \end{array}$$

3. $8.15 + 6.962 = \underline{\hspace{2cm}}$

8.
$$\begin{array}{r} + 6.146 \\ \underline{4.958} \end{array}$$

4. $28.419 + 10.594 = \underline{\hspace{2cm}}$

9.
$$\begin{array}{r} + 25.17 \\ \underline{6.945} \end{array}$$

5. $+ 3.9 + 8.645 = \underline{\hspace{2cm}}$

10.
$$\begin{array}{r} + 25.19 \\ \underline{8.4} \end{array}$$

Lesson 55: Subtracts decimals through thousandths without and with regrouping.
(Competency II.G.2.2)

Exercise Set A

Directions: Write the decimals in column and find the difference.

1. $0.546 - 0.123 = \underline{\hspace{2cm}}$

2. $0.933 - 0.701 = \underline{\hspace{2cm}}$

3. $0.478 - 0.154 = \underline{\hspace{2cm}}$

4. $0.692 - 0.402 = \underline{\hspace{2cm}}$

5. $0.356 - 0.025 = \underline{\hspace{2cm}}$

6. $0.71 - 0.564 = \underline{\hspace{2cm}}$

7. $0.42 - 0.145 = \underline{\hspace{2cm}}$

8. $0.9 - 0.236 = \underline{\hspace{2cm}}$

9. $0.457 - 0.362 = \underline{\hspace{2cm}}$

10. $0.343 - 0.045 = \underline{\hspace{2cm}}$

Exercise Set B

Directions: Find the difference.

1.
$$\begin{array}{r} 0.953 \\ - 0.041 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 0.438 \\ - 0.126 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 0.194 \\ - 0.023 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 0.431 \\ - 0.21 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 0.654 \\ - 0.231 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 0.786 \\ - 0.452 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 0.421 \\ - 0.145 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 0.9 \\ - 0.286 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 0.86 \\ - 0.474 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 0.902 \\ - 0.656 \\ \hline \end{array}$$

Lesson 56: Subtracts mixed decimals with regrouping.
(Competency II.G.3.1)

Exercise Set A

Directions: Study the item below then answer the questions that follow.

$$\begin{array}{r} 4.054 \\ - 2.672 \\ \hline 1.382 \end{array}$$

- _____ 1. What is the difference of the given numbers?
- _____ 2. What is the minuend?
- _____ 3. What is the subtrahend?
- _____ 4. What must be done if a digit in the minuend has lesser value compared to the digit in the same place value in the subtrahend?

Directions: Find the difference.

5. $\begin{array}{r} 5.3 \\ - 4.18 \\ \hline \end{array}$

8. $\begin{array}{r} 25.645 \\ - 10.758 \\ \hline \end{array}$

6. $\begin{array}{r} 17.642 \\ - 9.956 \\ \hline \end{array}$

9. $\begin{array}{r} 6.123 \\ - 4.256 \\ \hline \end{array}$

7. $\begin{array}{r} 9.684 \\ - 1.795 \\ \hline \end{array}$

10. $\begin{array}{r} 5 \\ - 3.479 \\ \hline \end{array}$

Lesson 56: Subtracts mixed decimals with regrouping.
(Competency II.G.3.1)

Exercise Set B

Directions: Subtract the given equations.

$$\begin{array}{r} 1. \quad - \quad 8.456 \\ \quad \quad \underline{4.298} \end{array}$$

$$\begin{array}{r} 6. \quad - \quad 8.425 \\ \quad \quad \underline{4.658} \end{array}$$

$$\begin{array}{r} 2. \quad - \quad 9.573 \\ \quad \quad \underline{4.298} \end{array}$$

$$\begin{array}{r} 7. \quad - \quad 24.53 \\ \quad \quad \underline{19.894} \end{array}$$

$$\begin{array}{r} 3. \quad - \quad 48.037 \\ \quad \quad \underline{19.579} \end{array}$$

$$\begin{array}{r} 8. \quad - \quad 46.92 \\ \quad \quad \underline{27.756} \end{array}$$

$$\begin{array}{r} 4. \quad - \quad 56.345 \\ \quad \quad \underline{37.496} \end{array}$$

$$\begin{array}{r} 9. \quad - \quad 34.582 \\ \quad \quad \underline{7.693} \end{array}$$

$$\begin{array}{r} 5. \quad - \quad 5.342 \\ \quad \quad \underline{3.9} \end{array}$$

$$\begin{array}{r} 10. \quad - \quad 43.6 \\ \quad \quad \underline{26.85} \end{array}$$

**Lesson 57: Solves word problems involving either addition or subtraction of decimal including money.
(Competency II.G.3.2)**

Exercise Set A

Directions: Analyze and solve each problem carefully.

1. Alfred is 1.4 meters tall and Tony is 1.38 meters tall.
 - a. What is the total height of the two boys?
 - b. How much taller is Alfred than Tony?
2. Ken spent Php69.50 for food, Php100 for a pair of socks and Php295.50 for a t-shirt.
 - a. If he had Php500 before buying these items, how much does he have left?
 - b. How much was left of his five-hundred peso bill?
3. Judith bought a notebook for Php30.50 and a ballpen for Php18.50. She gave the cashier P100.00.
 - a. What was the total cost of the items bought?
 - b. How much change did she get?
4. John weighs 54.5 kilograms. Jason weighs 4.75 kilograms lighter than John. What is their combined weight?
5. Mark's average grade is 88.6 and Roger's is 85.85. By how many points is Mark's average grade higher than Roger's?

Exercise Set B

Directions: Analyze and solve each problem carefully.

1. Pacita bought 13.5 kg of beef, 9.25 kg of fish, and 5.75 kg of chicken. How many kilograms of meat and fish did she buy in all?
2. Margie sells rice cakes. She earned Php100 on Saturday, Php55.65 on Sunday and Php28.50 on Monday. How much did she earn on these three days?
3. Father bought a 4-kilogram of roasted chicken which cost Php480.45. He gave a P1000.00 bill to the cashier. How much was his change?
4. Geri cut 18.3 meters from a 32.5 meters plastic pipe. How many meters of the pipe was left?
5. Jessie saved Php72.50 on Wednesday, Php103.25 on Thursday, and Php38.75 on Friday. What was his total savings during these three days?

**Lesson 58: Solves 2-step word problems involving addition and subtraction of decimals including money.
(Competency II.G.3.3)**

Exercise Set A

Directions: Solve each problem following the steps in problem solving.

1. Joy buys a pair of shoes for Php875.75 and a pair of socks for Php79.80. How much change will she receive if she gives the cashier a Php1000.00 bill?
2. I am thinking of a number. If the sum of 2.45 and 9.8 is subtracted from it, the result is 8.21. What number am I thinking of?
3. How much change will mother get from her Php1000.00 bill if she buys three books that cost Php395.50, Php245.20 and Php189.25 respectively?
4. Tonio is saving for a pair of rubber shoes. It costs Php 1450.00. To date, he has saved Php 935.65. Ate gave him Php 135.00 additional money. How much more does he need to save to buy those shoes?
5. Andrew had 18.25 kg of tomatoes to sell in the market. In the morning, he sold 6.4 kg while he sold 7.35 kg in the afternoon. How many kilograms of tomatoes were left unsold that day?

**Lesson 58: Solves 2-step word problems involving addition and subtraction of decimals including money.
(Competency II.G.3.3)**

Exercise Set B

Directions: Read and solve each problem.

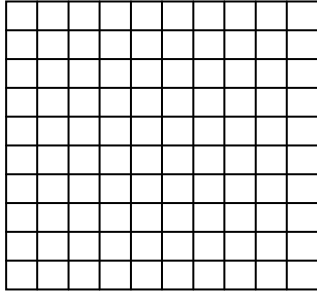
1. A lad bought a pair of shoes costs Php345.25, a pair of socks for Php32.50 and a handkerchief for Php75.90. If the lady gives the cashier a Php500.00 bill, how much would her change?
2. Ben is 1.5 kilograms lighter than Cherie. Cherie is 1.35 kg. heavier than Anne. Anne is 4275 kg. How heavy is Ben?
3. Granny bought 15.25 meters of cloth. Form this, he used 8.5 meters for curtains and 6.5 meters for bed sheets. How many meters of cloth were not used?
4. Mother bought 5 kilograms of meat. She cooked 1.75 kg on Saturday and 2.25 kg on Sunday. How many kilograms of meat were not cooked on Saturday and Sunday?
5. Father harvested 32.2 kilograms of mangoes in the morning of Saturday and 21.4 kg in the afternoon. The next day, he sold 45.5 kg and left the rest for his children. How many kilograms of mangoes was left for his children?

Lesson 59: Visualizes multiplication of decimals using models.
(Competency II.H.1.1)

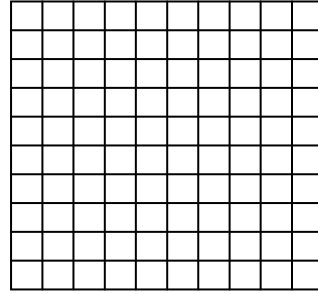
Exercise Set A

Directions: Illustrate the given equation in the grid.

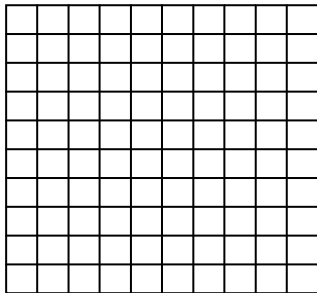
1. $0.7 \times 0.6 = n$



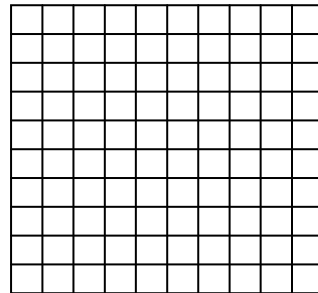
3. $0.2 \times 0.3 = n$



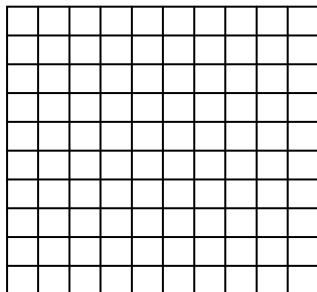
2. $0.4 \times 0.8 = n$



4. $0.3 \times 0.5 = n$



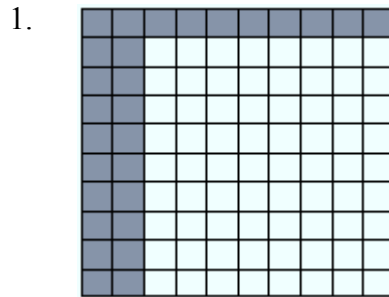
3. $0.6 \times 0.6 = n$

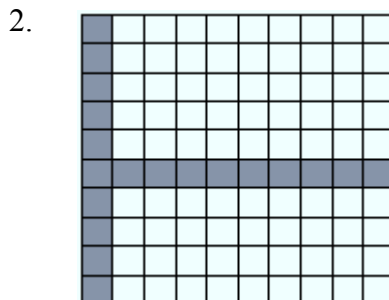


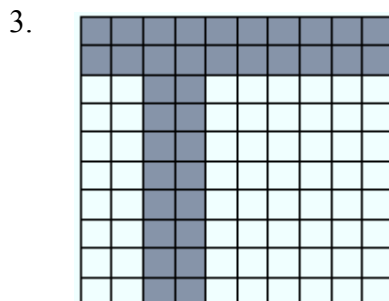
Lesson 59: Visualizes multiplication of decimals using models.
(Competency II.H.1.1)

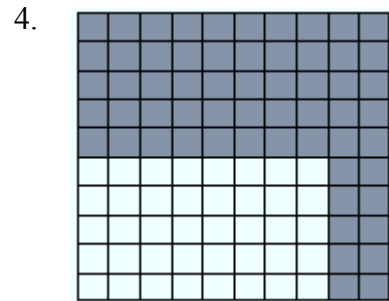
Exercise Set B

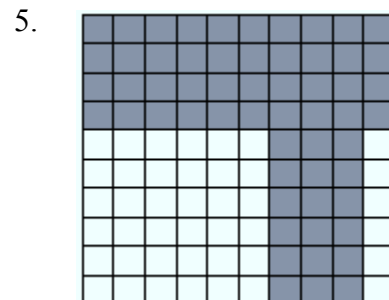
Directions: Write the multiplication sentences represented by the given illustrations











Lesson 60: Multiplies tenths by another tenths.
(Competency II.H.1.2)

Exercise Set A

Directions: Write the number of decimal places in the product then solve for the product.

	Number of Decimal Places in Both Factors	Product
1. 0.8×0.6	_____	_____
2. 0.4×0.5	_____	_____
3. 0.4×0.4	_____	_____
4. 0.6×0.6	_____	_____
5. 0.2×0.9	_____	_____

Directions: Read each statement carefully. Write an equation then solve.

_____ 6. If 0.9 is multiplied by 0.5, the product would be what number?

_____ 7. Find the product of 0.8 and 0.7.

_____ 8. What will be the product of 0.4 and 0.2?

_____ 9. If the factors are 0.6 and 0.7, What is the product?

_____ 10. Solve for the product of 0.6×0.9 .

Lesson 60: Multiplies tenths by another tenths.
(Competency II.H.1.2)

Exercise Set B

Directions: Find the products.

$$1. \begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$$

$$6. \begin{array}{r} 4 \\ \times 7 \\ \hline \end{array}$$

$$2. \begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$$

$$7. \begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$$

$$3. \begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$$

$$8. \begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$$

$$4. \begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$$

$$9. \begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$$

$$5. \begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$$

$$10. \begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$$

Lesson 61: Multiplies hundredths by tenths and vice versa.
(Competency II.H.1.3)

Exercise Set A

Directions: Place the decimal point in the product correctly.

$$\begin{array}{r} 0.06 \\ 1. \times \underline{0.9} \\ 0054 \end{array}$$

$$\begin{array}{r} 0.24 \\ 4. \times \underline{0.5} \\ 0120 \end{array}$$

$$\begin{array}{r} 0.28 \\ 2. \times \underline{0.2} \\ 0056 \end{array}$$

$$\begin{array}{r} 0.37 \\ 5. \times \underline{0.3} \\ 0111 \end{array}$$

$$\begin{array}{r} 0.08 \\ 3. \times \underline{0.7} \\ 0056 \end{array}$$

Directions: Write in column form and find the product.

$$6. \quad 0.5 \times 0.31 = \underline{\hspace{2cm}}$$

$$9. \quad 0.8 \times 0.06 = \underline{\hspace{2cm}}$$

$$7. \quad 0.7 \times 0.73 = \underline{\hspace{2cm}}$$

$$10. \quad 0.4 \times 0.24 = \underline{\hspace{2cm}}$$

$$8. \quad 0.3 \times 0.35 = \underline{\hspace{2cm}}$$

Lesson 61: Multiplies hundredths by tenths and vice versa.
(Competency II.H.1.3)

Exercise Set B

Directions: Complete the table with the product of given numbers.

X	0.4	0.6	0.9
1. 0.19	_____	_____	_____
2. 0.73	_____	_____	_____
3. 0.05	_____	_____	_____
4. 0.24	_____	_____	_____
5. 0.38	_____	_____	_____

Directions: Read each statement carefully. Write an equation then solve.

6. If 0.7 is multiplied by 0.84, what will be the product? _____
7. Find the product of 0.3 and 0.44. _____
8. The product of 0.9 and 0.72 is equal to what number? _____
9. What will be the answer if 0.6 is multiplied by 0.64? _____
10. What is the product of 0.7 and 0.27? _____

Lesson 62: Knowing the multiplication process.
(Competency II.H.2)

Exercise Set A

Directions: Fill in the blanks to make the statements correct.

To multiply decimals, first multiply the numbers like 1) _____, then count the 2) _____ in the factors. This number should be 3) _____ to the number of decimal places in the product. When we count decimal places in a factor, we count from 4) _____.

Directions: Multiply then write the decimal point in the correct place.

$$5. \quad \begin{array}{r} 0.35 \\ \times 0.6 \\ \hline \end{array}$$

$$6. \quad \begin{array}{r} 0.87 \\ \times 0.3 \\ \hline \end{array}$$

$$7. \quad \begin{array}{r} 0.92 \\ \times 0.8 \\ \hline \end{array}$$

$$8. \quad \begin{array}{r} 0.43 \\ \times 0.7 \\ \hline \end{array}$$

$$9. \quad \begin{array}{r} 0.58 \\ \times 0.6 \\ \hline \end{array}$$

Exercise Set B

Directions: Answer the question correctly

1. What is being referred to as the short method of adding the same addends? _____

Directions: Enumerate the parts of a multiplication sentence.

2. _____

3. _____

4. _____

5. _____

Directions: Label the parts of a multiplication sentence.

0.19 → 6. _____

$\times 0.12$ → 7. _____

38 → 8. _____

19

0.0228 → 9. _____

10. The term used in putting together the multiplicand and the multiplier is called _____.

Lesson 63: Multiplies mixed decimals with tenths and hundredths by whole numbers.
(Competency II.H.3)

Exercise Set A

Directions: Find the product.

$$\begin{array}{r} 7.3 \\ 1. \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 23.4 \\ 2. \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 156.8 \\ 3. \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 9.876 \\ 4. \times 14 \\ \hline \end{array}$$

$$\begin{array}{r} 56.7 \\ 5. \times 23 \\ \hline \end{array}$$

$$\begin{array}{r} 2.78 \\ 6. \times 46 \\ \hline \end{array}$$

$$\begin{array}{r} 51.04 \\ 7. \times 26 \\ \hline \end{array}$$

$$\begin{array}{r} 10.49 \\ 8. \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 5.67 \\ 9. \times 32 \\ \hline \end{array}$$

$$\begin{array}{r} 153.62 \\ 10. \times 21 \\ \hline \end{array}$$

Exercise Set B

Directions: Read each statement carefully. Write an equation then solve.

1. What is 26×36.7 equal to?
2. If 7 is multiplied by 18.6, what will be the product?
3. Multiply 8 by 0.23, The product would be what number?
4. The product of 28 and 36.72 is.
5. What would be the product if 16 is multiplied by 123.45?

Directions: Find the product of the given factors.

$$\begin{array}{r} 348.3 \\ 6. \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 764.4 \\ 7. \times 24 \\ \hline \end{array}$$

$$\begin{array}{r} 746.48 \\ 7. \times 32 \\ \hline \end{array}$$

$$\begin{array}{r} 321.16 \\ 9. \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 34.65 \\ 10. \times 123 \\ \hline \end{array}$$

Lesson 64: Multiplies mixed decimals by mixed decimals with tenths and hundredths.
(Competency II.H.4)

Exercise Set A

Directions: Place the decimal point correctly the underlined number.

1. $6.75 \times \underline{75} = 50.625$

2. $4.1 \times 6.4 = \underline{2624}$

3. $\underline{309} \times 0.42 = 1.2978$

4. $8.4 \times 1.25 = 1050$

5. $1.02 \times \underline{94} = .9588$

Directions: Match the factors with the product. Write the letters of the correct answer on the blanks.

1. $2.4 \times 34.6 = \underline{\hspace{2cm}}$

a. 3173.9886

2. $1.7 \times 52.19 = \underline{\hspace{2cm}}$

b. 802.816

3. $5.12 \times 156.8 = \underline{\hspace{2cm}}$

c. 627.4114

4. $4.22 \times 752.13 = \underline{\hspace{2cm}}$

d. 88.723

5. $9.17 \times 68.42 = \underline{\hspace{2cm}}$

e. 83.04

Lesson 64: Multiplies mixed decimals by mixed decimals with tenths and hundredths.
(Competency II.H.4)

Exercise Set B

Directions: Encircle the letter of the correct answer.

1. $6.3 \times 74.12 =$ a. 46.6956 b. 466.956 c. 4669.56

2. $4.6 \times 54.9 =$ a. 252.54 b. 252.52 c. 25.254

3. $4.8 \times 6.79 =$ a. 32.492 b. 325.92 c. 32.592

4. $5.16 \times 8.94 =$ a. 460.304 b. 461.304 c. 46.1304

5. $4.12 \times 27.46 =$ a. 113.1352 b. 1131.352 c. 11313.52

Directions: Find the product.

6.
$$\begin{array}{r} 92.03 \\ \times 4.1 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 13.09 \\ \times 1.25 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 66.8 \\ \times 7.2 \\ \hline \end{array}$$

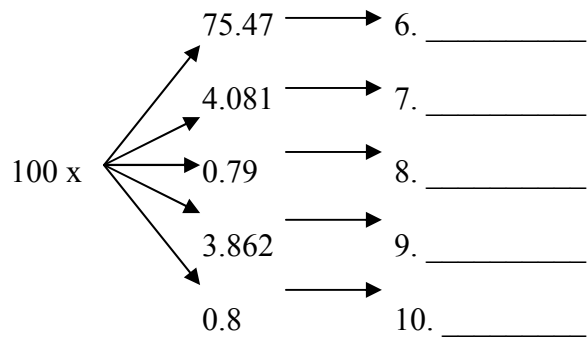
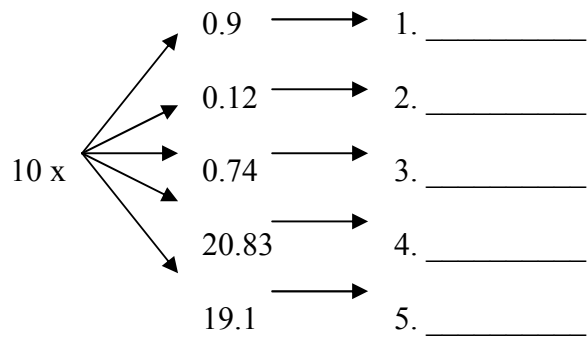
10.
$$\begin{array}{r} 3.16 \\ \times 1.12 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 5.51 \\ \times 1.05 \\ \hline \end{array}$$

Lesson 65: Multiplies decimals by 10 and 100.
(Competency II.H.5)

Exercise Set A

Directions: Write the product of given numbers.



Exercise Set B

Directions: Write 10 or 100 on the blank.

1. _____ x 0.07 = 0.7

2. 8.4 x _____ = 84

3. 8.02 x _____ = 80.2

4. _____ x 0.12 = 12

5. _____ x 2.123 = 212.3

6. _____ x 4.6 = 46

7. 0.911 x _____ = 9.11

8. _____ x 4.567 = 456.7

9. _____ x 0.98 = 98

10. 6.13 x _____ = 613

Lesson 66: Multiplies decimal by 0.1, 0.01 and 0.001.
(Competency II.H.6)

Exercise Set A

Directions: Read each statement carefully and write your answer on the space provided.

1. If 0.1 is multiplied by 2.5, how many decimal places are there in the product?
2. By how many places?
3. If 0.001 is used as the multiplier of a whole number, how many decimal places will there be in the product?

Directions: Multiply the following.

4. $23.48 \times 0.01 =$ _____
5. $0.1 \times 2.15 =$ _____
6. $0.01 \times 3.24 =$ _____
7. $0.01 \times 24.6 =$ _____
8. $0.001 \times 354.3 =$ _____
9. $0.001 \times 9712.5 =$ _____

Exercise Set B

Directions: Mentally find the product.

1.
$$\begin{array}{r} 2.8 \\ \times 0.1 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 197.62 \\ \times 0.1 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 30.8 \\ \times 0.01 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 32.578 \\ \times 0.01 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 16.505 \\ \times 0.001 \\ \hline \end{array}$$

Directions: Multiply the following.

1. $0.1 \times 987.6 =$ _____
2. $0.01 \times 2463.5 =$ _____
3. $0.01 \times 65.42 =$ _____
4. $0.001 \times 743.1 =$ _____
5. $0.001 \times 1234.2 =$ _____

Lesson 67: Solves word problems involving multiplication of decimals including money.
(Competency II.H.7)

Exercise Set A

Directions: Write a multiplication sentence then solve.

1. If a car can travel 51.8 kilometers in an hour, how far can it go in 7 hours?
Multiplication Sentence: _____
Correct answer: _____
2. One meter of cloth costs Php70.75. How much would 5.4 meters cost?
Multiplication Sentence: _____
Correct answer: _____
3. A kilogram of rice is Php32.75. How much will 10 kilograms cost?
Multiplication Sentence: _____
Correct answer: _____
4. Mother has two kilograms of chicken. She used 0.4 of it. How many kilograms of chicken did she use?
Multiplication Sentence: _____
Correct answer: _____
5. Mother bought 6 cans of milk at P33.25 each. How much did she pay in all?
Multiplication Sentence: _____
Correct answer: _____

Exercise Set B

Directions: Analyze and solve each problem carefully.

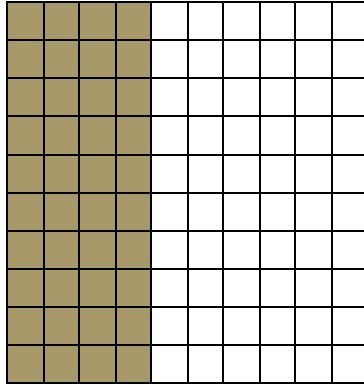
1. Mother bought a whole dressed chicken weighing 1.8 kilograms. If a kilogram costs Php112.75, how much did she pay for the chicken?
2. Ana used 0.9 meter of cloth to make a pillowcase. If she finished 10 pillowcases, how many meters of cloth did she use in all?
3. Elaine pays Php100.00 an hour for her driving lessons. How much does she pay for 22.5 hours?
4. If each bag of cement costs Php180.25, how much would 12 bags cost?
5. Debbie has 11.5 liters of paint. She used 0.9 of it. How much paint did she use?

Lesson 68: Visualizes division of decimals using models.
(Competency II.I.1.1)

Exercise Set A

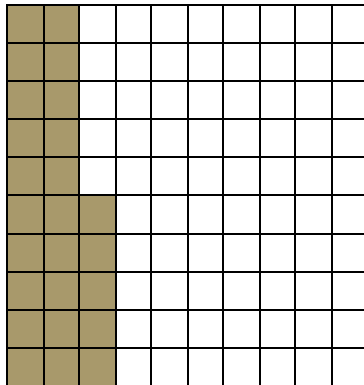
Directions: Refer to the diagrams to answer the questions.

Consider this as one whole:



1. What part of the whole square is shaded? _____
2. Divide the shaded part into four equal parts. What would each part look like?
3. So we say 0.4 divided by 4 is equal to what number? _____

Consider this as one whole:



4. What part of the whole is shaded? _____
5. Divide the shaded region into 5 equal parts. How many small squares will be in each set? _____
6. Based on your experiment, we say 0.25 divided by 5 is _____

Lesson 68: Visualizes division of decimals using models.
(Competency II.I.1.1)

Exercise Set B

Directions: Answer the following questions per item. You may use coins to help you answer items 1 and 2.

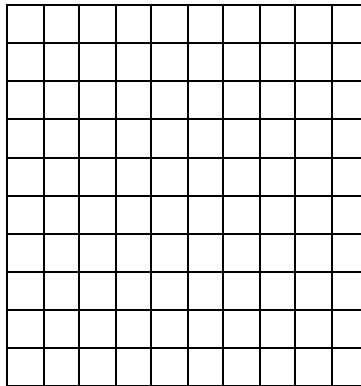
1. a. How many 25 centavo coins are in Php 2.00? _____
 b. We can write 25-centavos as what number? _____
 c. We can then write our equation as:

$$\text{Php } 2.00 \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

2. a. If we have Php 5.00, how many 10 centavo coins in this amount equal to? _____
 b. We can write 10-centavo coins as what decimal? _____
 c. We can then have this equation:

$$\text{Php } 5.00 \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

3. Consider this as one whole



- a. Show and Shade: 0.8
- b. Divide the shaded region into 16 equal parts.
 How many small squares will be in each part? _____
- c. What decimal is represented by each shaded part in (b)? _____
- d. What equation can we use to represent the activity/exercise? _____
- e. What is the answer to the equation? _____

Lesson 69: Divides decimals by whole numbers.
(Competency II.1.1.2)

Exercise Set A

Directions: Using a line, match the equation in Column A with the quotient in Column B.

Column A

Column B

1. $0.35 \div 7 = n$

a. 0.186

2. $0.744 \div 4 = n$

b. 0.047

3. $0.048 \div 3 = n$

c. 0.1248

4. $0.235 \div 5 = n$

d. 0.016

5. $0.9984 \div 8 = n$

e. 0.05

6. $4.5 \div 9 = n$

f. 0.16

7. $0.9984 \div 8 = n$

g. 0.47

8. $0.94 \div 2 = n$

h. 0.0744

9. $3.744 \div 3 = n$

i. 0.5

10. $0.2976 \div 4 = n$

j. 1.248

Exercise Set B

Directions: Find the quotient. Show your solution and check your answer through multiplication.

1. $0.1640 \div 8 = n$

2. $0.2418 \div 6 = n$

3. $0.6307 \div 7 = n$

4. $0.529 \div 23 = n$

5. $0.1 \div 4 = n$

Lesson 70: Divides decimals by decimals through hundredths.
(Competency II.1.1.3)

Exercise Set A

Directions: Place the decimal point correctly in the quotient.

$$1. \quad \begin{array}{r} 5 \\ 0.08 \overline{)0.40} \end{array}$$

$$2. \quad \begin{array}{r} 26 \\ 0.5 \overline{)1.3} \end{array}$$

$$3. \quad \begin{array}{r} 15 \\ .12 \overline{)0.180} \end{array}$$

$$4. \quad \begin{array}{r} 7 \\ .3 \overline{)0.21} \end{array}$$

$$5. \quad \begin{array}{r} 5 \\ .04 \overline{)2.0} \end{array}$$

Exercise Set B

Directions: Find the quotient. Check answer by using multiplication.

$$1. \quad 0.31 \overline{)0.372}$$

$$2. \quad 1.5 \overline{)0.945}$$

$$3. \quad 0.05 \overline{)0.204}$$

$$4. \quad 0.11 \overline{)0.693}$$

$$5. \quad 0.29 \overline{)0.928}$$

Directions: Answer the following questions.

$$6. \quad \text{How many } 0.31 \text{ are there in } 0.961?$$

$$7. \quad \text{How many } 0.12 \text{ are there in } 0.648?$$

$$8. \quad \text{How many } 0.26 \text{ are there in } 0.598?$$

$$9. \quad \text{How many } 0.47 \text{ are there in } 0.611?$$

$$10. \quad \text{How many } 0.8 \text{ are there in } 0.64?$$

Lesson 71: Analyzes and solves word problems involving division of decimals.
(Competency II.1.2.1)

Exercise Set A

Directions: Analyze the problem carefully. Answer the following questions.

A pharmacist is filling a prescription that call for 0.35 gram of a vitamin. The vitamin is only available in 0.05 gram tablets. How many tablets should be put in the container?

1. What is asked in the problem?
2. What are given?
3. What is the word clue?
4. What operation will be used?
5. How is the number sentence be written?
6. What is the answer?

The boy hiked 3.5 km during the recent camping trip. This is twice as far as the Girl Scouts kined. How far did the Girl Scouts hike?

7. What are given?
8. How will you solve the problem?
9. What equation will solve the problem?
10. What answer will you get?

Lesson 71: Analyzes and solves word problems involving division of decimals.
(Competency II.I.2.1)

Exercise Set B

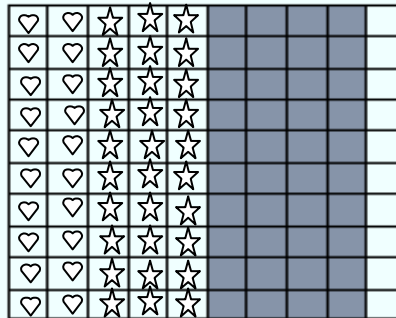
Directions: Read and solve. Show the solution and check your answer using multiplication.

1. Mother bought 0.78 kilogram of grapes. She repacked the grapes so that each pack contains 0.26 kilogram. How many packs did mother use?
2. At Php14.75 per plastic bag of charcoal, how many bags can be bought with P132.75?
3. If P1575.00 is paid for 50 kilograms of rice, how much did a kilogram of rice cost?
4. Marie has Php 41.00 which she asked the bank teller to change to 25-centavo coins. How many coins did the bank teller give her?
5. Marina had 0.81 meter of gold ribbon which she cut into several pieces. If each piece measured 0.09 meter, how many pieces of ribbon were there?

Lesson 72: Visualizes the meaning of percent.
(Competency II.1.2.2)

Exercise Set A

Directions: Study the illustration. Answer the questions below.



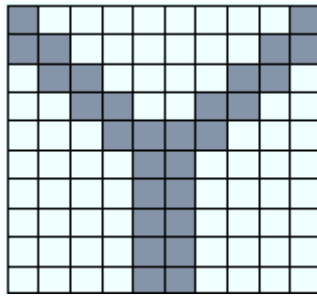
1. How many squares are there? _____
2. How many squares are shaded gray? _____
3. How many squares have a star shape in them? _____
4. How many squares have a heart shape in them? _____
5. What is known as a ratio in which one number is compared to 100? _____
6. What is the symbol of percent? _____
7. What percentage of the big square has hearts? _____
8. What percentage of the big square has stars? _____
9. What percentage of the big square is shaded gray _____
10. What percentage of the whole is un-shaded? _____

Lesson 72: Visualizes the meaning of percent.
(Competency II.1.2.2)

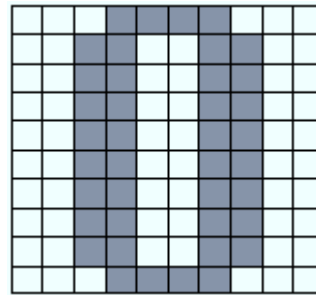
Exercise Set B

Directions: Express the following shaded parts in percent. Write your answers on the blanks below the figures.

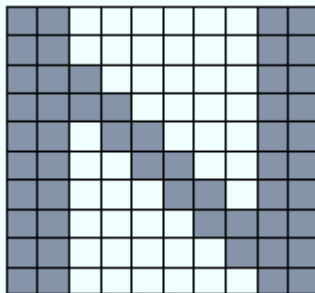
1.



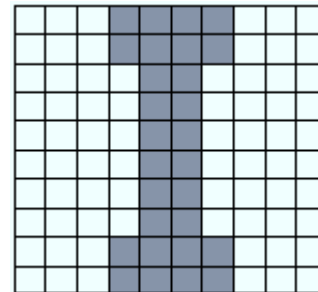
2.



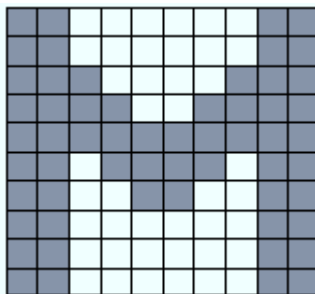
3.



4.



5.



Lesson 73: Gives the relationships between fractions/ratios and percent.
(Competency II.I.2.3)

Exercise Set A

Directions: Write the shaded part of the figure as fraction, ratio, and percent of the whole figure.

1.



Fraction/Ratio _____

Percent: _____

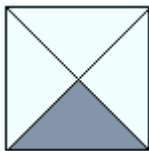
2.



Fraction/Ratio: _____

Percent: _____

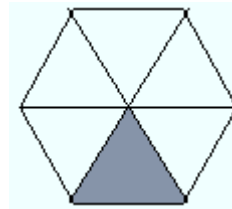
3.



Fraction/Ratio: _____

Percent: _____

4.



Fraction/Ratio: _____

Percent: _____

5.



Fraction/Ratio: _____

Percent: _____

Lesson 73: Gives the relationships between fractions/ratios and percent.
(Competency II.I.2.3)

Exercise Set B

Directions: Rename each of the following ratios/fractions to percent. Write your answer on the blank

1. $\frac{3}{4}$ _____

2. $\frac{1}{2}$ _____

3. $\frac{2}{3}$ _____

4. $\frac{1}{5}$ _____

5. $\frac{4}{5}$ _____

Directions: Rename each of the following ratios/fractions to percent. Write your answer on the blank

1. 85% _____

2. 90% _____

3. 200% _____

4. 11% _____

5. 32% _____

**Lesson 74: Gives the relationships between percent and decimal.
(Competency II.1.2.4)**

Exercise Set A

Directions: Answer the following. Write the answer on the space provided.

1. What will be multiplied by a decimal to change it into percent? _____
2. When changing decimal to percent, what direction will the decimal point have to be moved?

3. To change decimal into percent, how many decimal places will be moved from the decimal point?

4. To change percent to decimal, what operation will be used?

5. What direction will the decimal point be moved to rename percent to decimal? _____

Directions: Rename the following numbers from percent to decimal or vice versa.

6. 0.25 _____
7. 0.08 _____
8. 0.125 _____
9. 36.5% _____
10. 7% _____

Exercise Set B

Directions: Change each item from percent to decimal.

1. 0.2% = _____
2. 84.5% = _____
3. 15.6% = _____
4. 300% = _____
5. 99% = _____

Directions: Change each item from decimal to percent.

6. 0.62 = _____
7. 1.75 = _____
8. 0.05 = _____
9. 0.018 = _____
10. 2.12 = _____

Lesson 75: Gives the relationships among fractions, ratios, decimals and percents.
(Competency II.1.2.5)

Exercise Set A

Directions: Correctly complete the table below.

Fraction/Ratio	Decimal	Percent
1. _____	.6	_____
2. $\frac{4}{5}$	_____	80%
3. $\frac{4}{12}$	_____	_____
4. _____	_____	225%
5. _____	0.571	_____
6. 5:10	_____	_____
7. _____	_____	_____
8. _____	0.75	75%
9. _____	_____	1%
10. $\frac{3}{20}$	_____	_____

Lesson 75: Gives the relationships among fractions, ratios, decimals and percents.
(Competency II.I.2.5)

Exercise Set B

Directions: Change the given fraction into ratio, decimal and percent.

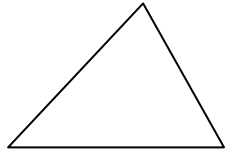
Fraction/Ratio	Decimal	Percent
1. $\frac{1}{6}$ =	_____	_____
2. $\frac{7}{10}$ =	_____	_____
3. $\frac{3}{5}$ =	_____	_____
4. $\frac{1}{2}$ =	_____	_____
5. 1:3 =	_____	_____
6. $\frac{5}{8}$ =	_____	_____
7. 3:10=	_____	_____
8. 7:8 =	_____	_____
9. $\frac{1}{8}$ =	_____	_____
10. 1:25=	_____	_____

Lesson 76: Identifies kinds of polygons.
(Competency III.A.1.1)

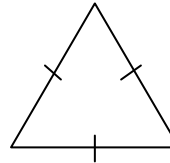
Exercise Set A

Directions: Identify the following polygons.

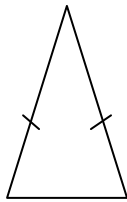
1.



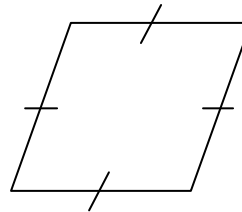
2.



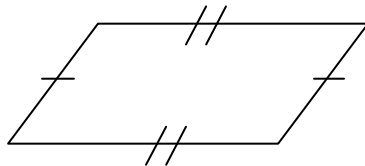
3.



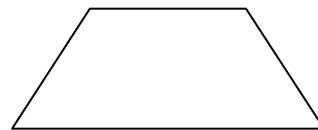
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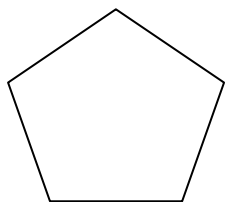
5.



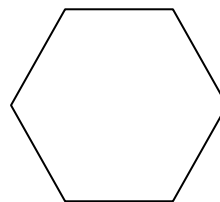
6.



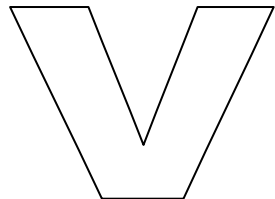
7.



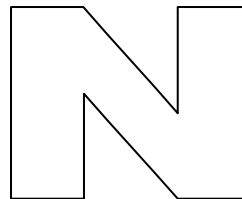
8.



9.



10.



Lesson 76: Identifies kinds of polygons.
(Competency III.A.1.1)

Exercise Set B

Directions: Match the polygons with the correct number of sides.

A

1. undecagon

2. triangle

3. decagon

4. heptagon

5. quadrilateral

6. dodecagon

7. hexagon

8. nonagon

9. pentagon

10. octagon

B

a. 9 sides

b. 4 sides

c. 7 sides

d. 10 sides

e. 12 sides

f. 6 sides

g. 11 sides

h. 5 sides

i. 8 sides

j. 3 sides

Lesson 77: Describes polygons.
(Competency III.A.1.2)

Exercise Set A

Directions: Complete the table.

Polygons	Number of Sides
1. hexagon	_____
2. _____	8
3. _____	3
4. undecagon	_____
5. quadrilateral	_____
6. dodecagon	_____
7. _____	9
8. _____	10
9. _____	7
10. _____	5

Exercise Set B

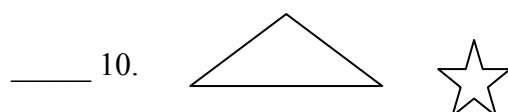
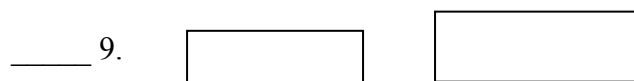
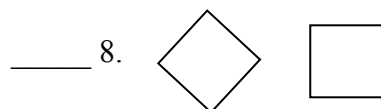
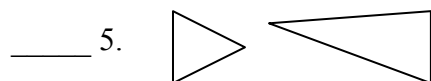
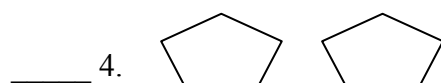
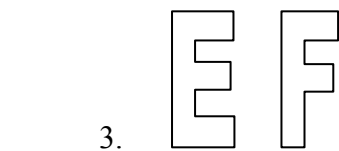
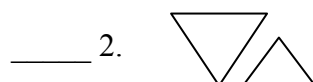
Directions: Draw the given figures.

1. decagon
2. nonagon
3. octagon
4. rectangle
5. heptagon
6. parallelogram
7. trapezoid
8. pentagon
9. hexagon
10. triangle

Lesson 78: Visualizes/identifies congruent polygons.
(Competency III.A.2.1.1)

Exercise Set A

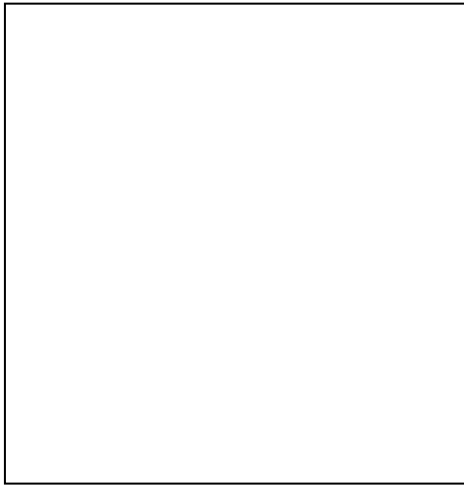
Directions: Put a check (✓) on the space provided if it contains congruent polygons and an X if it is not.



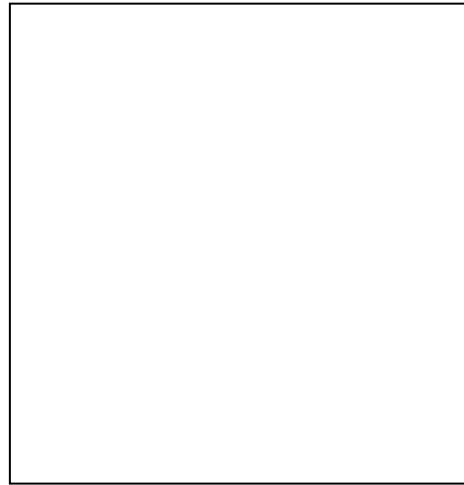
Lesson 78: Visualizes/identifies congruent polygons.
(Competency III.A.2.1.1)

Exercise Set B

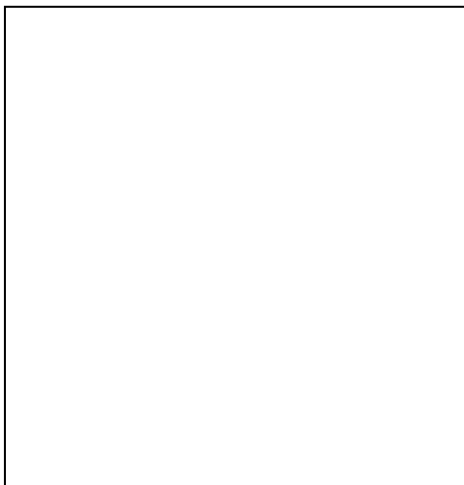
Directions: In each box, draw a pairs of congruent polygons.



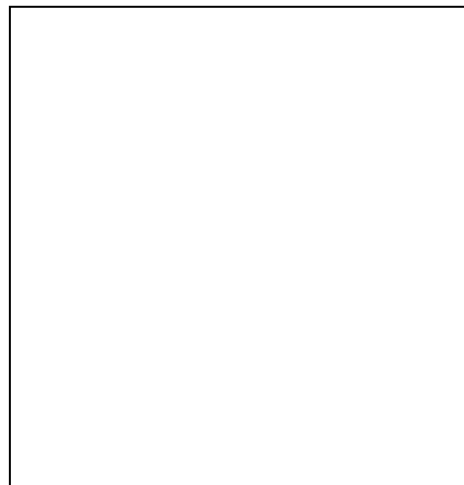
SQUARES



TRIANGLES



STARS



RECTANGLES

Lesson 79: Visualizes/identifies/describes/draws polygons.
(Competency III.A.2.1.2)

Exercise Set A

Directions: Read each statement carefully. Choose and encircle the letter of the correct answer.

1. Which refers to a closed-figure formed by line segments?
a. ray b. segment c. line d. polygon
2. What polygon has 4 equal sides?
a. angle b. rectangle c. square d. triangle
3. Which is a 3-sided polygon with two sides equal?
a. isosceles triangle b. equilateral triangle c. rectangle d. obtuse triangle
4. Which of the following does not have any congruent sides?
a. parallelogram b. rhombus c. trapezoid d. trapezium
5. A polygon with 7 sides is called _____.
a. heptagon b. hexagon c. pentagon d. quadrilateral
6. Which has 8 sides?
a. pentagon b. hexagon c. heptagon d. octagon
7. How many sides are there in a nonagon?
a. 7 b. 8 c. 9 d. 10
8. If there are 6 sides in a polygon, what do you call it?
a. pentagon b. hexagon c. heptagon d. nonagon
9. The following statement would lead to the naming of the polygon EXCEPT
a. by counting the number of sides
b. by counting the number of angles
c. by counting the number of points
d. by counting the number of vertices

Lesson 79: Visualizes/identifies/describes/draws polygons.
(Competency III.A.2.1.2)

Exercise Set B

Directions: Match Column A with Column B by writing the correct letter of the space provided.

A	B
_____ 1. It has no pair of parallel sides	a. trapezoid
_____ 2. It has 4 congruent sides	b. rhombus
_____ 3. It has 4 right angles and 4 equal sides.	c. parallelogram
_____ 4. It has 2 pairs of parallel sides	d. rectangle
_____ 5. It has 2 pairs of parallel sides	e. trapezium
_____ 6. It has 2 pairs of parallel sides and 4 right angles	

Directions: Draw the following triangles.

- | | |
|---------------------|--------------------|
| 7. scalene triangle | 9. right triangle |
| 8. obtuse triangle | 10. acute triangle |

**Lesson 80: Derives a formula for finding the distance around a circle.
(Competency IV.A.1.1)**

Exercise Set A

Directions: Fill in the blank with the correct answer.

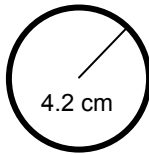
1. _____ refers to the distance around a circle.
2. A line segment from one point on the circle to another point on the circle that passes through the center is called _____.
3. _____ is half as long as a diameter.
4. _____ has a value of approximately 3.1416.
5. _____ is a symbol for Pi.
6. Pi is the ratio of the circumference to the _____.
7. The circumference will be the dividend and the diameter will be the _____.
8. If the radius is given, the formula in getting the circumference is _____.
9. The formula to be used is _____ if the diameter is given.
10. The fraction to approximate the value of Pi is _____.

Lesson 80: Derives a formula for finding the distance around a circle.
(Competency IV.A.1.1)

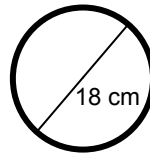
Exercise Set B

Directions: Write the equation to be used in getting the circumference of the given .

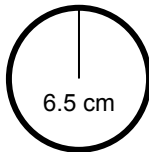
1.



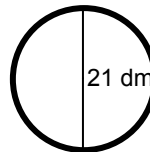
6.



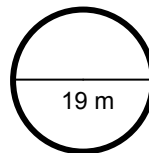
2.



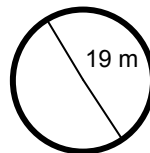
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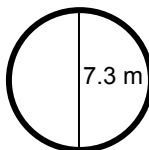
3.



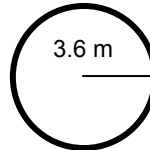
8.



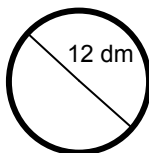
4.



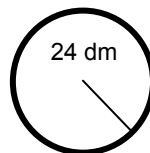
9.



5.



10.



Lesson 81: Finds the circumference of a circle.
(Competency IV.A.1.2)

Exercise Set A

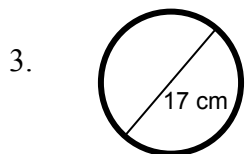
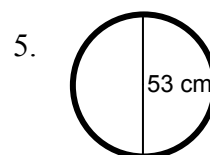
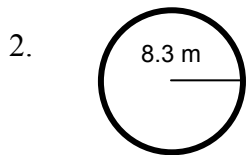
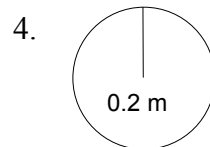
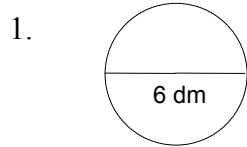
Directions: Supply the missing data in the table below. Use $\pi = 3.14$.

Radius	Diameter	Circumference
1. _____	24 cm	_____
2. 12.5 dm	_____	_____
3. _____	16 m	_____
4. 24.2 dm	_____	_____
5. _____	9 m	_____
6. 53 cm	_____	_____
7. _____	38 dm	_____
8. 8.4 m	_____	_____
9. _____	12 cm	_____
10. 9 m	_____	_____

Lesson 81: Finds the circumference of a circle.
(Competency IV.A.1.2)

Exercise Set B

Directions: Solve for the circumference of the given figures. Use $\pi = 3.14$.



Directions: Find the circumference. Use $\pi = 3.14$.

6. $r = 42 \text{ cm}$

7. $d = 12 \text{ dm}$

8. $r = 10 \text{ m}$

9. $d = 61 \text{ cm}$

10. $d = 11 \text{ m}$

**Lesson 82: Analyzes word problem involving circumference measure.
(Competency IV.A.2.1.1)**

Exercise Set A

Directions: Read the word problems and answer the questions that follow.

Use $\pi = 3.14$.

A swimming pool is circular in shape. It has a diameter of 52 meters. How far is it around the pool?

1. What is asked in the problem?
2. What are given?
3. What is the word clue?
4. How will the word problem be transformed into a number sentence?
5. What is the complete answer?

Jay's pigpen has a circumference of 235.5 meters. Find its radius.

6. What is asked in the problem?
7. What are given?
8. What operation will solve the problem?
9. What is the complete answer?

Exercise Set B

Directions: Analyze and answer the following problems accurately. Use

$\pi = 3.14$.

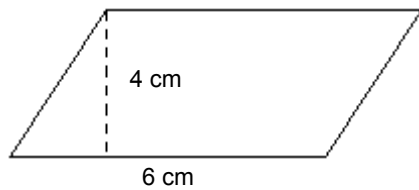
1. Find the radius of a circular playground having a circumference of 1789.8 meters.
2. Anton jogs around the circular park everyday. The park has a diameter of 8 meters. How far is one round around the park?
3. A man wants to enclose his circular flower bed with fencing material. The flower bed has a radius of 12 decimeters. How much does he need?
4. How much lace will mother use as edging for a circular tablecloth if the diameter is 140 centimeters?
5. The radius of a bicycle's wheel is 25 centimeters. How far can it go in two turns?

Lesson 83: Finds the area of parallelograms.
(Competency IV.B.1)

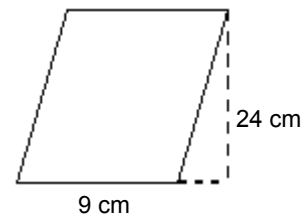
Exercise Set A

Directions: Solve for the area of each parallelogram.

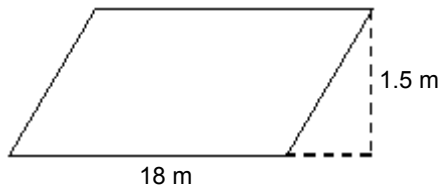
1.



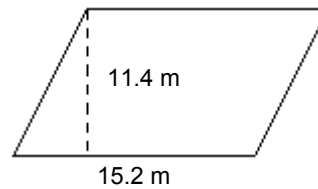
4.



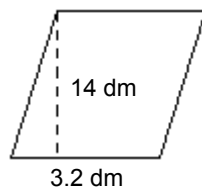
2.



5.



3.



Lesson 83: Finds the area of parallelograms.
(Competency IV.B.1)

Exercise Set B

Directions: Answer the following questions correctly.

1. What formula will be used to get the area of a parallelogram? _____
2. How should the base and height be related? _____
3. What unit is used in area? _____
4. What's another term for height? _____
5. If the base and the area are given, what do we do to get the height? _____
6. If the base is unknown, how do we solve for it? _____

Directions: Solve for the unknown. Use $A = Bh$.

7. $A = 135 \text{ m}^2$
 $b = 9 \text{ m}$
 $h = ?$

8. $A = 64\text{m}^2$
 $b = ?$
 $h = 8 \text{ m}$

9. $A = ?$
 $b = 23 \text{ cm}$
 $h = 25 \text{ cm}$

10. $A = ?$
 $b = 25 \text{ m}$
 $h = 15 \text{ m}$

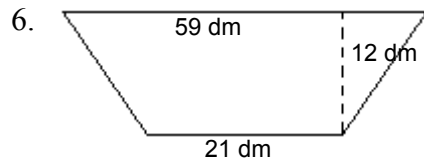
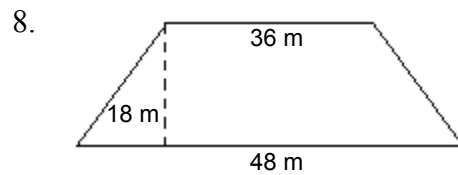
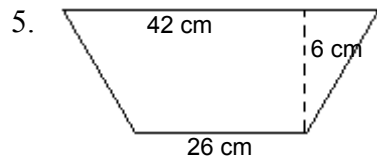
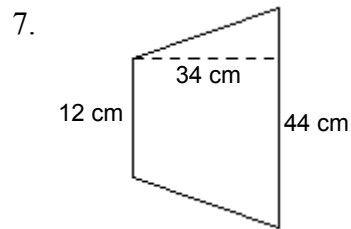
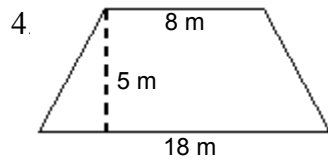
Lesson 84: Finds the area of trapezoids.
(Competency IV.B.1.2)

Exercise Set A

Directions: Read each statement carefully and write the correct answer on the blank.

1. A _____ is an irregular quadrilateral with one pair of parallel sides.
2. It has _____ bases.
3. The formula for finding it is _____.

Directions: Find the area of the given trapezoids. Use $A = \frac{1}{2}(b_1 + b_2)h$.



Lesson 84: Finds the area of trapezoids.
(Competency IV.B.1.2)

Exercise Set B

Directions: Find the value of the unknown. Use $A = \frac{1}{2}(b_1 + b_2)h$. Use b_1 and b_2 notation. b_1 means $b \times 1$, b_2 means $b \times 2$.

1. $b_1 = 8 \text{ cm}$
 $b_2 = 10 \text{ cm}$
 $h = 5 \text{ cm}$
 $A = ?$

4. $A = 40 \text{ cm}^2$
 $b_1 = 8 \text{ cm}$
 $b_2 = 12 \text{ cm}$
 $h = ?$

2. $b_1 = 9 \text{ m}$
 $b_2 = 12 \text{ m}$
 $h = 8 \text{ m}$
 $A = ?$

5. $A = 23.22 \text{ m}^2$
 $b_1 = 6.2 \text{ m}$
 $b_2 = 4.6 \text{ m}$
 $h = ?$

3. $b_1 = 5 \text{ dm}$
 $b_2 = 9 \text{ dm}$
 $h = 14 \text{ dm}$
 $A = ?$

6. $A = 95 \text{ dm}^2$
 $b_1 = 14 \text{ dm}$
 $b_2 = 24 \text{ dm}$
 $h = ?$

Lesson 85: Finds the area of circles.
(Competency IV.B.1.3)

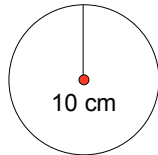
Exercise Set A

Directions: Write the answer on the space provided.

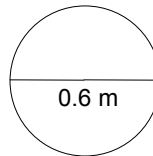
1. The point which is equidistant from any point of the circle. _____
2. A line segment from the center to a point on the circle. _____
3. A line segment from one point on the circle to another point on the circle that passes through the center. _____
4. A part of the circle: _____
5. The distance around the circle _____

Directions: Find the area of each circle. Use $\pi = 3.14$.

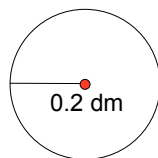
6.



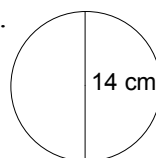
9.



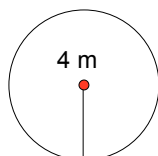
7.



10.



8.



Lesson 85: Finds the area of circles.
(Competency IV.B.1.3)

Exercise Set B

Directions: Write the data required to complete the chart. Use $\pi = 3.14$. Round off your answer to two decimal places.

Diameter	Radius	r^2	Area
1. 13 cm			
2. 6.2 dm			
3. 22 m			
4. 18 m			
5. 30 dm			
6. 20 cm			

Lesson 86: Analyzes and solves word problems involving area of plane figures.
(Competency IV.B.2.1)

Exercise Set A

Directions: Analyze the word problems and answer the questions below.

A fishpond is in the form of a parallelogram. Its base is 18 meters and its height is 15 meters. How many square meters is the fishpond?

1. What is asked in the problem?
2. What are given?
3. What operation will be used?
4. What is the number sentence?
5. What is the correct answer?

Father has a lot that is trapezoid in shape with 40 meters as the height. If its two bases measure 38 meters and 64 meters, how big is the lot?

6. What are given?
7. What is the number sentence?
8. What is the area of the lot?

Exercise Set B

Directions: Read and solve the problems below. Use $\pi = 3.14$.

1. A circular mirror has a radius of 28 cm. Find its area.
2. The wheel of a motorcycle has a diameter of 1 m. What is its area?
3. If the two bases of a trapezoidal garden are 12 meters and 20 meters, and its height is 34 meters, what would be the area of the garden?
4. The bases of a trapezoidal lot measure 55 meters and 74 meters. Its height is 86 meters. What would be its area?
5. What is the area of a parallelogram if it has a height of 36 dm and a base of 64 dm?

Lesson 87: Tells the unit of measure used for measuring the volume of cubes/rectangular prism.
(Competency IV.C.1.1)

Exercise Set A

Directions: Complete the statement by writing the correct answer on the space provided.

1. _____ are three-dimensional figures.
2. _____ has 6 equal faces.
3. A rectangular prism has _____ flat surfaces, 12 edges, and 8 vertices.
4. _____ is the amount of space contained in a solid figure.
5. _____, _____, _____ are the dimensions of solid figures.

Directions: Which would be an appropriate unit of measure for volume? Write cm^3 or m^3 on the space provided.

- _____ 6. water in an aquarium
- _____ 7. A tray of ice cube
- _____ 8. a truckload of cement
- _____ 9. a container van
- _____ 10. a stock room

Exercise Set B

Directions: Directions: Which would be an appropriate unit of measure for volume? Write cm^3 or m^3 on the space provided.

- _____ 1. a dice
- _____ 2. a warehouse
- _____ 3. a box of milk
- _____ 4. water tank
- _____ 5. a matchbox
- _____ 6. wall cabinet
- _____ 7. a soap box
- _____ 8. a container van
- _____ 9. thick book
- _____ 10. a truckload of sand

Lesson 88: Converts one cubic unit of measure to a larger or smaller unit.
(Competency IV.C.1.2)

Exercise Set A

Directions: Write the equivalent measure of the given units.

A.

1. 10 millimeters = ____ centimeter
2. ____ centimeters = 1 decimeter
3. 10 decimeters = ____ meter
4. ____ centimeters = 1 meter

B.

5. 1000 cubic millimeters =
____ cubic centimeter
6. ____ cubic centimeters =
1 cubic decimeter
7. 1000 cubic decimeters =
____ cubic meter
8. ____ cubic centimeters =
1 cubic meter
9. 12 cubic decimeter = ____
cubic centimeters
10. ____ cubic meter =
18 cubic decimeter

Exercise Set B

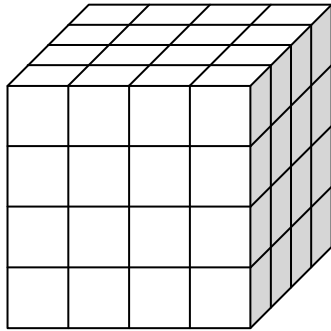
Directions: Write the answer of the following questions on the blank provided.

- ____ 1. What operation is used to change a bigger unit to a smaller unit?
- ____ 2. To convert a smaller unit to a bigger unit, what operation is needed?
- ____ 3. Which is a bigger unit?
Decimeter or centimeter?
- ____ 4. To compare decimeter and meter, which is smaller?
- ____ 5. How many cubic millimeters are there in 4 cubic centimeters?
- ____ 6. If there are 0.18 cubic decimeters, how many cubic centimeters is it equal to?
- ____ 7. What is the equivalent measure of 21 cubic meters in cubic centimeters?
- ____ 8. Change 172 cubic decimeters to cubic meters.
- ____ 9. How many cubic centimeters are there in 74 cubic millimeters?
- ____ 10. 123,456 cubic centimeters is equal to how many cubic meters?

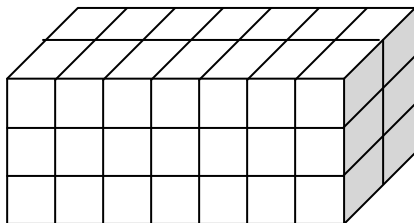
Lesson 89: Derives a formula for finding the volume of cubes and rectangular prisms.
(Competency IV.C.1.3)

Exercise Set A

Directions: Study the figure and answer the given questions. Write your answer on the space provided.



- _____ 1. What figure is shown?
- _____ 2. How many square faces does it have?
- _____ 3. How many dimensions are there?
- _____ 4. How many cubic units are in the figure?
- _____ 5. What can you say about its sides?

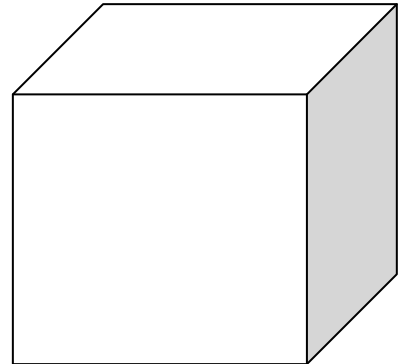


- _____ 7. What figure is shown?

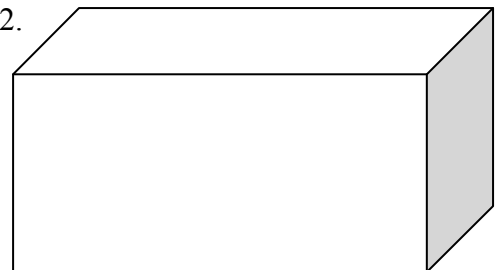
Exercise Set B

Directions: Write the formula to get the volume of the given figures.

1.



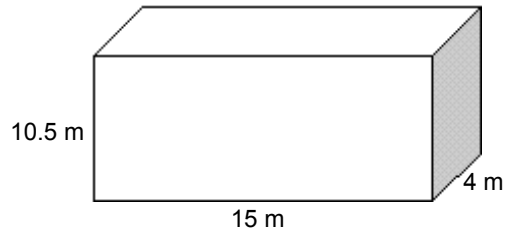
2.



Lesson 90: Finds the volume of cubes and rectangular prisms.
(Competency IV.C.1.4)

Exercise Set A

Directions: Complete the chart with the data in the given figures.



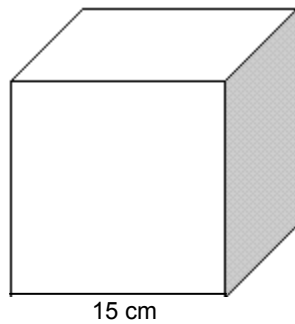
1. Rectangular prism

Length

Width

Height

Volume



2. Cube

Length

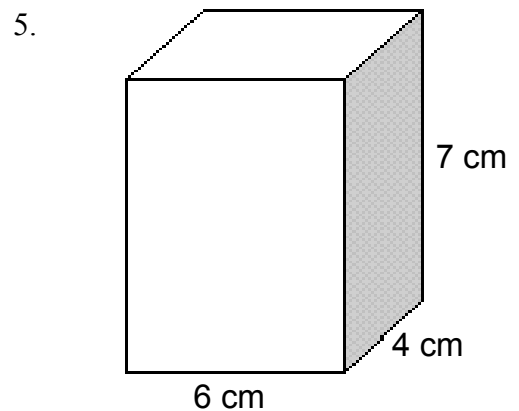
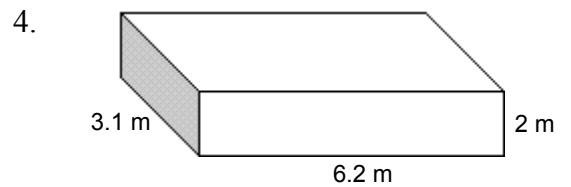
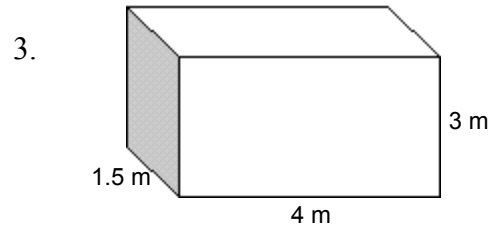
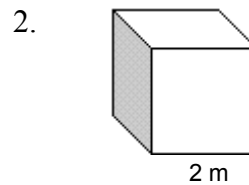
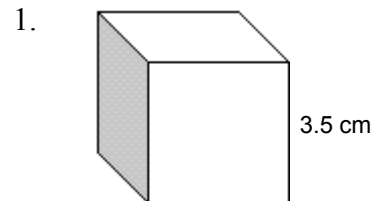
Width

Height

Volume

Exercise Set B

Directions: Find the volume of these solid figures.



**Lesson 91: Analyzes and solves word problems involving measurement of volume.
(Competency IV.C.2)**

Exercise Set A

Directions: Read the problems carefully.
Answer the questions that follow.

An aquarium measures 36 centimeters long, 32 centimeters wide and 30 centimeters high. What is its volume?

1. What is asked in the problem?
2. What are given?
3. What operation will be used?
4. How will the number sentence be written?
5. What is the answer?

An antique jewelry box is in a form of a cube that has an edge of 18 centimeter. Find its volume.

6. What solid figure is being referred to in the problem?
7. What is given?
8. What operation will solve the problem?
9. What formula will be used?
10. What is the volume?

Exercise Set B

Directions: Read and solve the volume of the following problems.

1. What would be the volume of a can of biscuit in the shape of a cube if it has an edge of 24 centimeters?
2. Find the volume of a cube whose side measures 5 meters.
3. A concrete water tank is 10 meters by 9 meters by 8 meters. What is its volume?
4. If a rectangular pool measures 8.5 meters long, 6 meters wide and 5.5 meters deep. If the water level is up to 0.5 meter below the top of the pool, how much water is in the pool?
5. A gift box when filled to capacity contains 70,928 cubic centimeters. What would be its height if its length and width measure 52 cm and 31 cm respectively?

Lesson 92: Identifies the parts of a thermometer.
(Competency IV.D.1.1)

Exercise Set A

Directions: Match the term in Column A with the descriptions in Column B. Write the letter of the correct answer on the space provided.

A	B
_____ 1. scale	a. An instrument used to measure temperature.
_____ 2. glass tube	b. A unit used in the metric system to measure temperature.
_____ 3. glass bulb	c. Holds the bulb that contains the mercury/liquid alcohol.
_____ 4. degree Celsius	d. Rises and falls when temperature changes.
_____ 5. thermometer	e. Tells how far the mercury rises and goes down.
_____ 6. mercury	f. Contains the mercury/liquid alcohol.

Directions: Rearrange the jumbled words to form the parts of a thermometer.

7. A S E L C _____

8. R U R M C Y E _____

9. B G S E T S A L U _____

10. U B G L A S L S B _____

Lesson 92: Identifies the parts of a thermometer.
(Competency IV.D.1.1)

Exercise Set B

Directions: Write your answer on the space provided.

1. What are the parts of a thermometer? _____, _____, _____, _____
2. What holds the glass bulb? _____
3. What holds the liquid? _____
4. What goes up and down when the temperature changes? _____
5. What tells how far the mercury goes up or down? _____
6. What instrument helps determine the temperature? _____

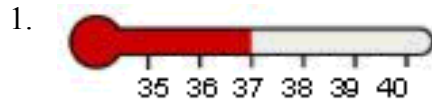
Directions: Rearrange the jumbled words to form the parts of a thermometer.

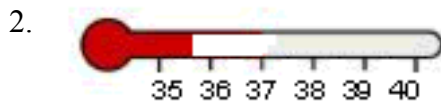
7. R U R M C Y E _____
8. A S E L C _____
9. U B G L A S L S B _____
10. B G S E T S A L U _____

Lesson 93: Reads a thermometer.
(Competency IV. D.1.2)

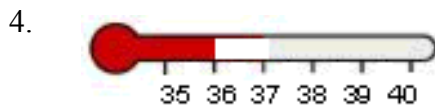
Exercise Set A

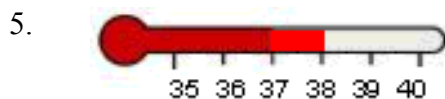
Directions: Write the temperature reading of the following.



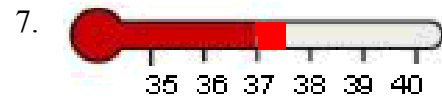




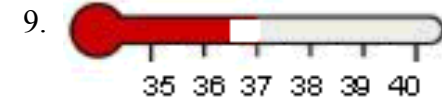


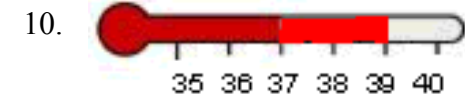












Lesson 93: Reads a thermometer.
(Competency IV. D.1.2)

Exercise Set B

Directions: Write the temperature reading when the mercury is:

_____ 1. at the boiling point in °C

_____ 2. at the freezing point in °C

_____ 3. 20 °C above the freezing point

_____ 4. Halfway between 30 °C to 40 °C

_____ 5. at the normal body temperature in °C

Directions: Encircle the approximate temperature of the following:

6. ice candy

a. 35 °C

b. 0 °C

c. 100 °C

7. a person with fever

a. 30 °C

b. 35 °C

c. 40 °C

8. bread baking in the oven

a. 290 °C

b. 150 °C

c. 50 °C

9. hot water

a. -10 °C

b. 30 °C

c. 70 °C

10. iced tea

a. 40 °C

b. 20 °C

c. 10 °C

**Lesson 94: Solves word problems involving body/weather temperature.
(Competency IV.D.2.1)**

Exercise Set A

Directions: Analyze the problems carefully. Write the equation and the answer on the space provided.

1. The temperature of Iligan City at one o'clock was 31°C . It fell by 6.5°C in five hours. What was the temperature reading of the place by the end of the five hours?

Equation: _____

Answer: _____

2. For 10 minutes, a thermometer was left in the freezer and showed a temperature of 15°C . What is the difference if the room has a temperature of 27°C ?

Equation: _____

Answer: _____

3. One morning, the temperature rose from 26°C to 32°C . How many degrees Celsius did it rise?

Equation: _____

Answer: _____

4. Ana's temperature had increased by 2 degrees Celsius from the normal body temperature. What was her new body temperature?

Equation: _____

Answer: _____

5. A man's temperature in the morning was 39.5°C . After two hours, his temperature is 38.2°C . How many degrees did his temperature decrease?

Equation: _____

Answer: _____

**Lesson 94: Solves word problems involving body/weather temperature.
(Competency IV.D.2.1)**

Exercise Set B

Directions: Read and solve each problem. (2 pts)

1. The temperature of a place on 3 different days were: 30°C , 28°C and 27.2°C . What was its average temperature? _____

2. The room had a temperature of 34°C in the afternoon. Two hours after it rained heavily, the thermometer showed a temperature of 24°C . How many degrees did the temperature go down? _____

3. What will be the new temperature if a 34°C be decreased by 5°C ? _____

4. Fe is not feeling well. When she got her body temperature, she noticed that it is 2 degrees higher than the normal body temperature. What was Fe's body temperature? _____

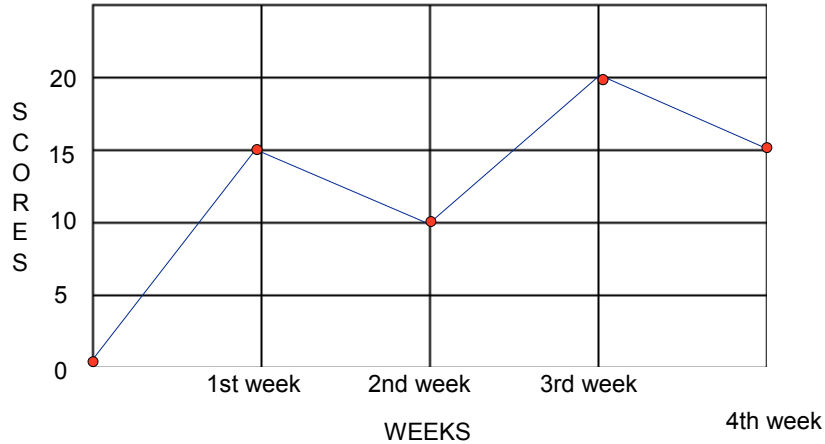
5. A child cannot sleep as his body temperature rose to 38.4°C . Few hours after giving him medicine, his temperature had decreased by 1.4°C . What was the child's temperature then? _____

Lesson 95: Interprets data presented in a line graph.
(Competency V.A.1)

Exercise Set A

Directions: Study the graph and answer the following questions.

Mae's Weekly Scores in Mathematics

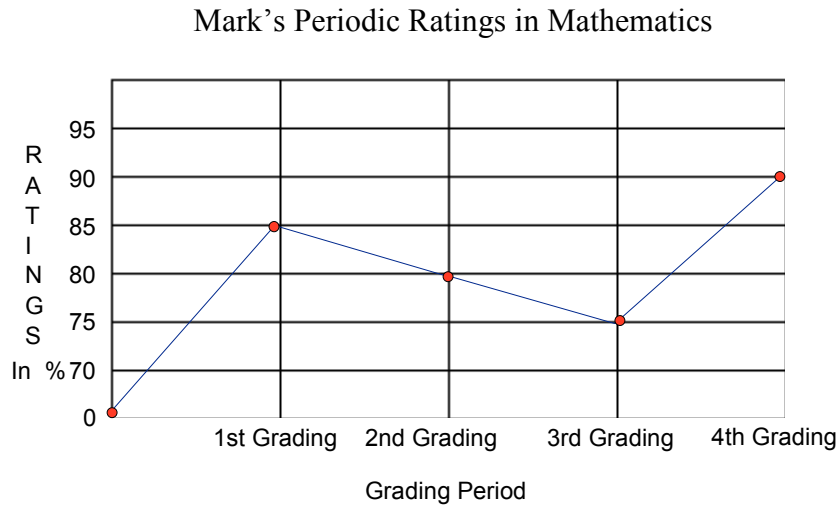


1. What does the vertical legend represent? _____
2. What does the horizontal legend show? _____
3. What kind of graph is shown? _____
4. What is the title of the graph? _____
5. Which axis contains the independent variable? _____
6. Which axis contains the dependent variable? _____
7. What is Mae's lowest score? _____
8. In what week did Mae get the highest score? _____
9. In what weeks did Mae get the same score? _____

Lesson 95: Interprets data presented in a line graph.
(Competency V.A.1)

Exercise Set B

Directions: Study the graph carefully. Then answer the questions below.



1. What is referred to as the point of origin? _____
2. What is the highest rating obtained? _____
3. What is Mark's lowest rating? _____
4. What period did he get the lowest rating? _____
5. By how much is the increase of his rating from the third grading period to the 4th grading period? _____
6. What is his rating in the first grading? _____
7. By how much is the decrease from the first grading to the third grading period? _____
8. What is the second lowest rating? _____
9. What is found at the y – axis? _____
10. What is Mark's average grade in Mathematics? _____

Lesson 96: Read a line graph.
(Competency V.A.2)

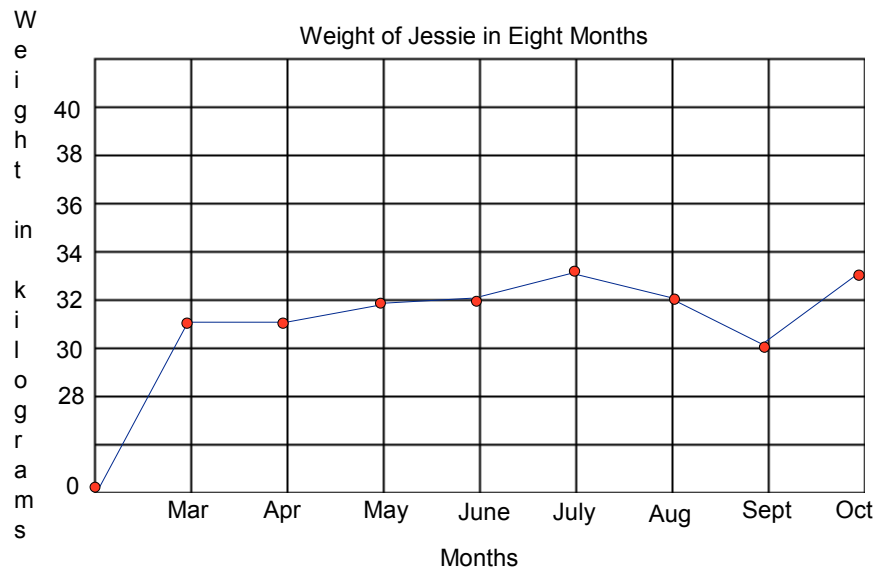
Exercise Set A

Directions: Read each statement carefully. Write the answer on the space at the left.

- _____ 1. A graph that presents data through points and lines.
- _____ 2. The vertical axis
- _____ 3. The horizontal axis
- _____ 4. A point of origin.
- _____ 5. An axis that contains the independent variable.
- _____ 6. An axis that bears the dependent variable.
- _____ 7. The name of the graph.
- _____ 8. The style of writing numbers at the y-axis.

Exercise Set B

Directions: Study the graph then answer the questions below. (2 pts each)



- 1. What information is presented in the graph? _____
- 2. How many kilograms was Jessie in August? September? and October?
August: _____ September: _____ October: _____
- 3. What can you say about Jessie's weight from March to May? _____
- 4. How many months were considered for Jessie's weight? _____

Lesson 97: Constructs/organizes data in a line graph.
(Competency V.A.3)

Exercise Set A

Directions: Enumerate the 4 parts of a line graph.

1. _____
2. _____
3. _____
4. _____

Directions: Construct a line graph using the data in the given table on the space below.

Number of T-shirts Sold	
Sizes	Quantity
Small	10
Medium	24
Large	36
Extra large	8

Exercise Set B

Directions: Use the given data to construct a line graph then answer the questions that follow.

1-5.

Mang Joseph's Profit for a Week							
Profit	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Amt in Pesos	P4000	P2000	P2500	P3500	P2800	P4500	P5000

6. On which day did Mang Joseph have the highest profit?
7. On Which day did Mang Joseph have the lowest profit?
8. What was the increase in profit from Thursday to Friday?
9. What was the decrease in profit from Wednesday to Thursday?
10. What was the total profit of the week?

Lesson 98: Tells the position of a certain object/place using the primary and secondary directions.
(Competency V.B.1)

Exercise Set A

Directions: Answer the following as directed.

Enumerate the 4 primary directions.

- 1.
- 2.
- 3.
- 4.

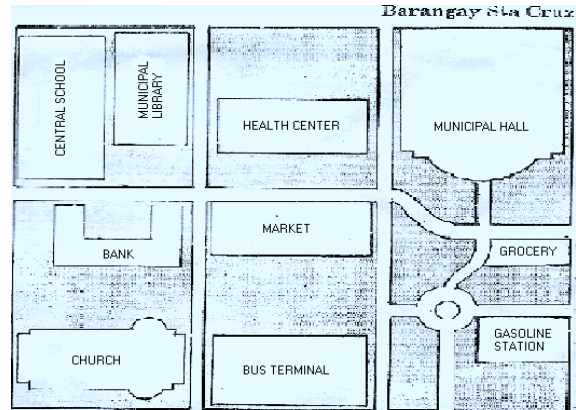
Enumerate the 4 secondary directions.

- 5.
- 6.
- 7.
- 8.

9-10. What is a scale drawing?

Exercise Set B

Directions: Study the map of Barangay Sta. Cruz. Then, Answer the questions that follow.



1. Use the market as the point of reference. What building is to its north? _____
2. What building is north of the gasoline station? _____
3. What is located southwest of the market? _____
4. What buildings are north of the bus terminal? _____
5. Where is the municipal hall located with respect to the grocery? _____
6. Where is the school located with respect to the library? _____
7. Where is the church located with respect to the bank? _____
8. What building is north of the bank? _____
9. What is located northeast of the bank? _____
10. What is located west of the gasoline station? _____

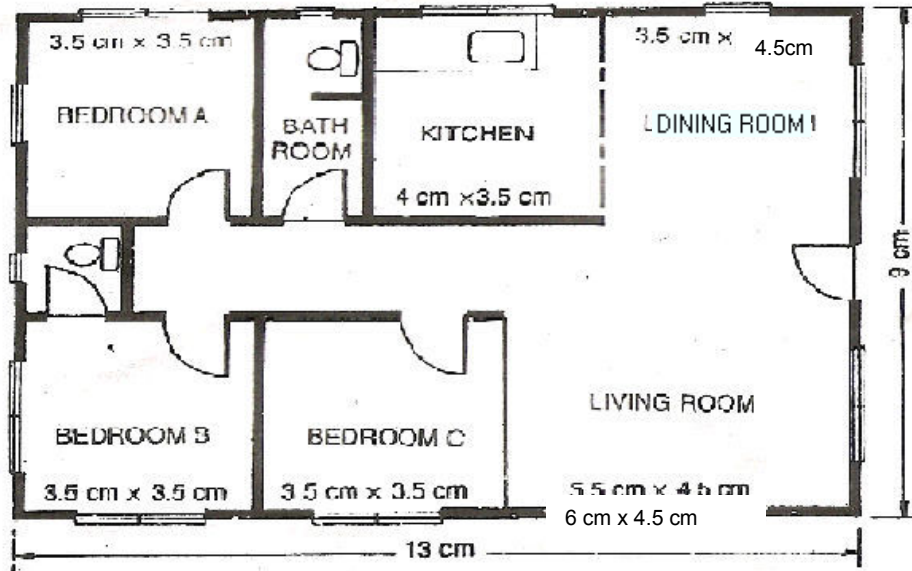
Lesson 99: Reads the scales used in maps, floor plans and house lots.
(Competency V.B.2.1)

Exercise Set A

Directions: Study the drawing. Use the scale and answer the questions that follow.

Scale: 1 cm = 1 m

A Scale Drawing of a House Plan

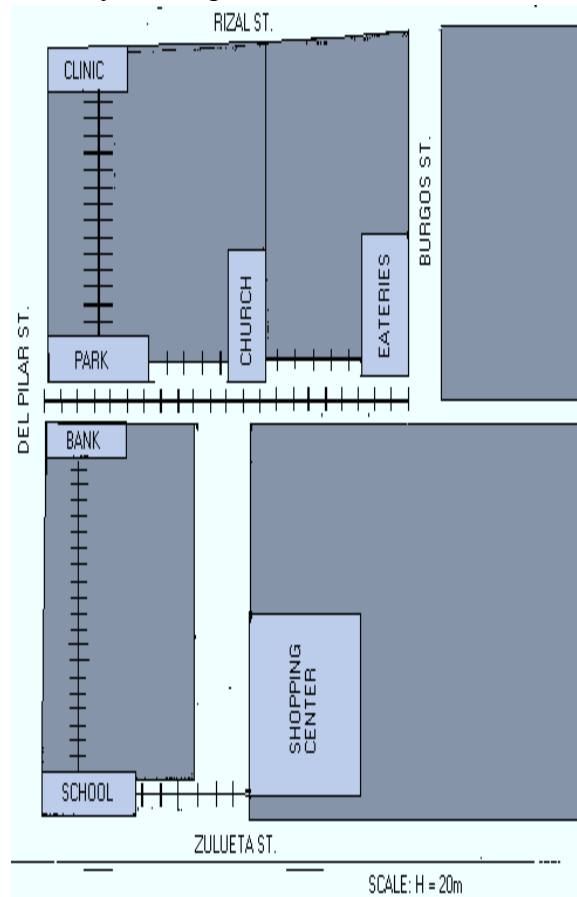


1. On the scale drawing, what are the outside dimensions of the house?
2. On the scale drawing, what are the dimensions of the kitchen?
3. On the scale drawing, what are the dimensions of each bedroom?
4. On the scale drawing, what are the dimensions of the dining room?
5. On the scale drawing, what is the area of the house plan?
6. On the scale drawing, what is the area of each bedroom?
7. What are the actual dimensions of the house plan?
8. What are the actual dimensions of the living room?
9. What are the actual dimensions of the dining room?
10. What are the actual dimensions of the kitchen?

Lesson 99: Reads the scales used in maps, floor plans and house lots.
(Competency V.B.2.1)

Exercise Set B

Directions: Study the map. Use the scale below to answer the given questions.



Scale: 1 cm = 20m

1. What scale is used?
2. Using the scale, what is the distance from the park to the church?
3. What is the distance from the bank to the school?
4. What is the distance from Burgos St. to Del Pilar Street?
5. What is the distance between the church and the eateries?
6. What is the distance from the school to the shopping center?
7. What is the distance from the clinic to the park?
8. What is the actual distance from the clinic to the park?
9. What is the actual distance from the school to the shopping center?
10. What is the actual distance from the church to the eateries?

ANSWER KEY FOR GRADE 5 MATHEMATICS

Lesson 1: Exercise A 1. 10,682 2. 24,069
3. 244,408 4. 26,092 5. 65,872 6. 169,956
7. 65,925 8. 1,894,428 9. 8,013,918
10. 6,540,331 **Exercise B** 1. 12,969 2. 32,408
3. 14,468 4. 33,725 5. 29,232 6. 431,579
7. 6,499,728 8. 519,288 9. 3,664,080
10. 8,790,085 **Lesson 2: Exercise A** 1. ★
2. 202,240 3. ★ 4. 2,852,961 5. ★ 6. ★ 7. ★
8. 777,295 9. 1,290,465 10. ★ **Exercise B**
1. ★ 2. ★ 3. 348,386 4. 1,657,689 5. 1 959 392
6. ★ 7. 417,928 8. ★ 9. ★ 10. ★ **Lesson 3:**
Exercise A 1.a 2.b 3.d 4.g 5.f 6.e 7.h 8.c 9.j
10.i **Exercise B** 1.d 2.a 3.b 4.h 5.f 6.c 7.g 8.e
9.i 10.j **Lesson 4: Exercise A** 1. 82000
2. 153, 600 3. 280,000 4. 1,550,000 5. 24,800,
000 6. 2,190,000 7. 3,284,000 8. 18,960, 000
9. 86,400,000 10. 1,122,129,000 **Exercise B**
1. 102,000 2. 123,900 3. 320, 000 4. 1,530,000
5. 14,600,000 6. 2,760, 000 7. 1,266,000
8. 10,460,000 9. 273 900,000 10. 954,492,000
Lesson 5: Exercise A 1. 12,340 2. 34,560
3. 56,700 4. 678,910 5. 246,800 6. 369,100
7. 234, 500 8. 481,200 9. 5,432,100 10. 40,413,
000 **Exercise B** 1. 31,450 2. 27,410 3.
67,080 4. 835,900 5. 741,600 6. 294,200 7.
554,600 8. 7,381,300 9. 6,198,000 10.
92,374,000 **Lesson 6: Exercise A**

40	60	600
1. x <u>3</u>	2. x <u>4</u>	3. x <u>2</u>
120	240	1200
400	400	70
4. x <u>7</u>	5. x <u>3</u>	6. x <u>30</u>
2800	1200	2100
90	500	600
7. x <u>10</u>	8. x <u>70</u>	9. x <u>90</u>
900	35000	54000
10000		
10. x <u>100</u>		
1000000		

Exercise B

60	80	400
1. x <u>2</u>	2. x <u>3</u>	3. x <u>5</u>
120	240	2000
300	1000	20
4. x <u>4</u>	5. x <u>6</u>	6. x <u>30</u>
1200	6000	600
50	500	900
7. x <u>20</u>	8. x <u>60</u>	9. x <u>50</u>
1000	30000	45000
10000		
10. x <u>100</u>		
1000000		

Lesson 7: Exercise A 1. 10,560 mangoes
2. Php20,080 3. P97,950 4. P31, 250
5. Php31,050 6. 59,625 pairs of socks 7. 78
years old 8. 3,852 quail eggs 9. P223,080
10. 4,032 hollow blocks **Exercise B**
1. Php2250
2. Php40,000 3. 2,920 hours 4. 28,100
mangoes 5. 78,988 seedlings 6. Php27 000
7. 23,210 copies 8. 5,712 cup cakes 9.
14,400 liters 10. 540 minutes
Lesson 8: Exercise A 1. 88 playing cards 2.
87 rooms 3. 517 pupils 4. P30 5. 3,828 boys
and girls 6. 24,500 7. Php 800 8. Php10,340
9. Php50
10. Php3,000 **Exercise B** 1. 240 noodles 2.
Php1,350 3. Php1,230 4. Php274 5. 264 soft
drink bottles 6. Php360 7. 2,140 stamps 8.
Php385 9. Php620 10. 4,800

Lesson 9: Exercise A

1724 + 2	606	7236 + 9
3636 + 6	804	2586 + 3
6645 + 5	882	4242 + 7
2412 + 3	2222	11961 + 9
8888 + 4	1329	17776 + 8

Exercise B

1976 + 2	988	1494 + 6
1245 + 5	431	2964 + 3
8580 + 4	249	3448 + 8
6635 + 5	1327	12870 + 6
3017 + 7	2145	11943 + 9

Lesson 10: Exercise A 1. 245 2. 326 3. 251
 4. 1515 5. 1012 6. 2014 7. 258 r9 8. 180 r5
 9. 536 r2 10. 1122 r2 **Exercise B**
 1. 212 2. 301 3. 407 4. 1023 5. 1678 6. 2061
 7. 561 r 5 8. 296 r24 9. 555 r4 10. 174 r 2
Lesson 11: Exercise A 1. $\sqrt{2}$ 2. $\sqrt{3}$ 3. X 4. $\sqrt{5}$ 5. $\sqrt{6}$
Exercise B 1. $\sqrt{2}$ 2. X 3. $\sqrt{4}$ 4. $\sqrt{5}$ 5. $\sqrt{6}$ 6. $\sqrt{7}$
Lesson 12: Exercise A 1. 57 2. 53 3. 71 4. 3920
 5. 6575 6. 320 7. 56 8. 44 9. 810 10. 192
Exercise B 1. 40 2. 80 3. 5 4. 21 5. 7300
 6. 64 7. 180 8. 180 9. 480 10. 1210
Lesson 13: Exercise A 1. b 2. c 3. b 4. c 5. a
 6. b 7. a 8. b 9. c 10. b **Exercise B** 1. C 2. b 3. a
 4. a 5. a 6. b 7. c 8. c 9. a 10. b **Lesson 14:**
Exercise A 1. 123 minutes 2. Php4,000 3. Php 360
 4. 245 patients 5. 47 students 6. 125 trees. **Exercise B** 1. 900 patients 2. 20 buses
 3. Php 300 4. 167 participants 5. 92 kg 6. 102 seats **Lesson 15: Exercise A** 1. 67

tables 2. 4 days 3. Php116 4. 50 doughnuts
 5. 81,000 **Exercise B** 1. Php 85 2. Php 5, 208
 3. 205 square meters 4. 72 trays 5. Php 5180
Lesson 16: Exercise A 1. 1, 5 ;Prime 2. 1, 2, 4, 8 ; Composite
 3. 1, 11 ; Prime 4. 1, 2, 4, 8, 16 ;Composite
 5. 1, 3, 7, 21 ;Composite 6. 1, 2, 4, 7, 14, 28 ;Composite
 7. 1, 31 ;Prime 8. 1, 43 ;Prime 9. 1, 2, 3, 4, 6, 9, 12, 18, 36; Composite
 10. 1, 2, 3, 6, 9, 18, 27, 54 ; Composite

Exercise B

7 GR	9 R	11 G	25 R	29 G
51 R	41 G	37 G	50 G	57 G
63 R	72 R	17 G	67 G	12 R
76 R	80 R	83 G	88 R	91 G
94 R	99 R	101 G	120 R	134 R

Lesson 17: Exercise A

1.
$$\begin{array}{c} 9 \\ \swarrow \quad \searrow \\ \underline{3} \quad \times \quad \underline{3} \\ \hline 9 = 3 \times 3 \end{array}$$

4.
$$\begin{array}{c} 42 \\ \swarrow \quad \searrow \\ \underline{6} \quad \times \quad \underline{7} \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ \underline{2} \quad \times \quad \underline{3} \quad \times \quad \underline{7} \\ \hline 42 = 2 \times 3 \times 7 \end{array}$$

2.
$$\begin{array}{c} 18 \\ \swarrow \quad \searrow \\ \underline{2} \quad \times \quad \underline{9} \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ \underline{2} \quad \times \quad \underline{3} \quad \times \quad \underline{3} \\ \hline 18 = 2 \times 3 \times 3 \end{array}$$

5.
$$\begin{array}{c} 56 \\ \swarrow \quad \searrow \\ \underline{7} \quad \times \quad \underline{8} \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ \underline{7} \quad \times \quad \underline{4} \quad \times \quad \underline{2} \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ \underline{7} \quad \times \quad \underline{2} \quad \times \quad \underline{2} \quad \times \quad \underline{2} \\ \hline 56 = 7 \times 2 \times 2 \times 2 \end{array}$$

3.
$$\begin{array}{c} 30 \\ \swarrow \quad \searrow \\ \underline{6} \quad \times \quad \underline{5} \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ \underline{2} \quad \times \quad \underline{3} \quad \times \quad \underline{5} \\ \hline 30 = 2 \times 3 \times 5 \end{array}$$

$$\begin{array}{r}
 6.2 \quad 40 \quad \begin{array}{|l} \hline \\ \hline \end{array} \\
 \quad \quad 5 \quad \begin{array}{|l} \hline 20 \\ \hline \end{array} \\
 \quad \quad 2 \quad \begin{array}{|l} \hline 4 \\ \hline \end{array} \\
 \quad \quad 2 \quad \begin{array}{|l} \hline 2 \\ \hline \end{array} \\
 \quad \quad \quad \underline{1}
 \end{array}$$

$$40 = 2 \times 2 \times 2 \times 5$$

$$\begin{array}{r}
 7.3 \quad 81 \quad \begin{array}{|l} \hline \\ \hline \end{array} \\
 \quad \quad 3 \quad \begin{array}{|l} \hline 27 \\ \hline \end{array} \\
 \quad \quad 3 \quad \begin{array}{|l} \hline 9 \\ \hline \end{array} \\
 \quad \quad 3 \quad \begin{array}{|l} \hline 3 \\ \hline \end{array} \\
 \quad \quad \quad \underline{1}
 \end{array}$$

$$81 = 3 \times 3 \times 3 \times 3$$

$$\begin{array}{r}
 8.2 \quad 54 \quad \begin{array}{|l} \hline \\ \hline \end{array} \\
 \quad \quad 3 \quad \begin{array}{|l} \hline 27 \\ \hline \end{array} \\
 \quad \quad 3 \quad \begin{array}{|l} \hline 9 \\ \hline \end{array} \\
 \quad \quad 3 \quad \begin{array}{|l} \hline 3 \\ \hline \end{array} \\
 \quad \quad \quad \underline{1}
 \end{array}$$

$$54 = 2 \times 3 \times 3 \times 3$$

$$\begin{array}{r}
 9.2 \quad \begin{array}{|l} \hline 100 \\ \hline \end{array} \\
 \quad \quad 2 \quad \begin{array}{|l} \hline 50 \\ \hline \end{array} \\
 \quad \quad 5 \quad \begin{array}{|l} \hline 25 \\ \hline \end{array} \\
 \quad \quad 5 \quad \begin{array}{|l} \hline 5 \\ \hline \end{array} \\
 \quad \quad \quad \underline{1}
 \end{array}$$

$$100 = 2 \times 2 \times 5 \times 5$$

$$\begin{array}{r}
 10.2 \quad \begin{array}{|l} \hline 144 \\ \hline \end{array} \\
 \quad \quad 2 \quad \begin{array}{|l} \hline 72 \\ \hline \end{array} \\
 \quad \quad 2 \quad \begin{array}{|l} \hline 36 \\ \hline \end{array} \\
 \quad \quad 2 \quad \begin{array}{|l} \hline 18 \\ \hline \end{array} \\
 \quad \quad 3 \quad \begin{array}{|l} \hline 9 \\ \hline \end{array} \\
 \quad \quad 3 \quad \begin{array}{|l} \hline 1 \\ \hline \end{array}
 \end{array}$$

$$144 = 2 \times 2 \times 2 \times 2 \times 3 \times 3$$

Exercise B

$$\begin{array}{c}
 1. \quad \begin{array}{c} 16 \\ \swarrow \quad \searrow \\ 4 \quad \times \quad 4 \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ 2 \quad \times \quad 2 \quad \times \quad 2 \quad \times \quad 2 \end{array}
 \end{array}$$

$$16 = 2 \times 2 \times 2 \times 2$$

$$\begin{array}{c}
 2. \quad \begin{array}{c} 38 \\ \swarrow \quad \searrow \\ 19 \quad \times \quad 2 \end{array}
 \end{array}$$

$$38 = 2 \times 19$$

$$\begin{array}{c}
 3. \quad \begin{array}{c} 70 \\ \swarrow \quad \searrow \\ 10 \quad \times \quad 7 \\ \swarrow \quad \searrow \\ 2 \quad \times \quad 5 \end{array}
 \end{array}$$

$$70 = 2 \times 5 \times 7$$

$$\begin{array}{c}
 4. \quad \begin{array}{c} 81 \\ \swarrow \quad \searrow \\ 9 \quad \times \quad 9 \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ 3 \quad \times \quad 3 \quad \times \quad 3 \quad \times \quad 3 \end{array}
 \end{array}$$

$$81 = 3 \times 3 \times 3 \times 3$$

$$\begin{array}{c}
 5. \quad \begin{array}{c} 200 \\ \swarrow \quad \searrow \\ 100 \quad \times \quad 2 \\ \swarrow \quad \searrow \\ 50 \quad \times \quad 2 \\ \swarrow \quad \searrow \\ 25 \quad \times \quad 2 \\ \swarrow \quad \searrow \\ 5 \quad \times \quad 5 \end{array}
 \end{array}$$

$$200 = 2 \times 2 \times 2 \times 5 \times 5$$

$$\begin{array}{r}
 6. \ 3 \overline{) 27} \\
 \underline{3 \ 9} \\
 3 \ 3 \\
 \underline{3 \ 0} \\
 1
 \end{array}$$

$$27 = 3 \times 3 \times 3$$

$$\begin{array}{r}
 7. \ 3 \overline{) 36} \\
 \underline{3 \ 12} \\
 2 \ 4 \\
 \underline{2 \ 2} \\
 1
 \end{array}$$

$$36 = 3 \times 3 \times 2 \times 2$$

$$\begin{array}{r}
 8. \ 2 \overline{) 42} \\
 \underline{3 \ 21} \\
 7 \ 7 \\
 \underline{7 \ 0} \\
 1
 \end{array}$$

$$42 = 2 \times 3 \times 7$$

$$\begin{array}{r}
 9. \ 2 \overline{) 150} \\
 \underline{5 \ 75} \\
 5 \ 15 \\
 \underline{3 \ 3} \\
 1
 \end{array}$$

$$150 = 2 \times 3 \times 5 \times 5$$

$$\begin{array}{r}
 10. \ 2 \overline{) 238} \\
 \underline{7 \ 119} \\
 17 \ 19 \\
 \underline{1 \ 0}
 \end{array}$$

$$238 = 2 \times 7 \times 17$$

Lesson 18: Exercise A

	Number Sets	Set of all Factors	Common Factors	GCF
1.	9	1, 3, 9	1	1
	10	1, 2, 5, 10		
2.	12	1, 2, 3, 4, 6, 12	1, 2, 4	4
	32	1, 2, 4, 8, 16, 32		
3.	14	1, 2, 7, 14	1, 2, 7	7
	56	1, 2, 7, 8, 28, 56		
4.	42	1, 2, 3, 6, 7, 14, 21, 42	1, 2, 3, 6	6
	60	1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60	1, 2, 3, 6	6
5.	24	1, 2, 4, 6, 12, 24	1, 2, 6	6
	30	1, 2, 3, 5, 6, 10, 15, 30		
	36	1, 2, 3, 4, 6, 9, 12, 18, 36		

$$\begin{array}{l}
 6. \ 4 = 2 \times 2 \\
 10 = 2 \times 5 \\
 \text{GCF} = 2
 \end{array}$$

$$\begin{array}{l}
 7. \ 9 = 3 \times 3 \\
 45 = 3 \times 3 \times 5 \\
 \text{GCF} = 3 \times 3 = 9
 \end{array}$$

$$\begin{array}{l}
 8. \ 18 = 2 \times 3 \times 3 \\
 24 = 2 \times 2 \times 3 \times 2 \\
 \text{GCF} = 2 \times 3 = 6
 \end{array}$$

$$\begin{aligned}
 9. \quad 32 &= \boxed{2} \times 2 \times 2 \times 2 \times 2 \\
 42 &= \boxed{2} \times 3 \times 7 \\
 \text{GCF} &= 2
 \end{aligned}$$

$$\begin{aligned}
 10. \quad 54 &= \boxed{2} \times \boxed{3} \times \boxed{3} \times 3 \\
 60 &= \boxed{2} \times \boxed{2} \times \boxed{3} \times 5 \\
 72 &= \boxed{2} \times \boxed{2} \times \boxed{3} \times 3 \times 2 \\
 \text{GCF} &= 2 \times 3 = 6
 \end{aligned}$$

Exercise B

	Number Sets	Set of all Factors	Common Factors	GCF
1.	4	1, 2, 4	1, 2	2
	10	1, 2, 5, 10		
2.	9	1, 3, 9	1, 3, 9	9
	45	1, 3, 5, 9, 15, 45		
3.	16	1, 2, 4, 8, 16	1, 2, 4, 8	8
	24	1, 2, 3, 4, 6, 8, 12, 24		
	15	1, 3, 5, 15	1, 3	3
	27	1, 3, 9, 27		
4.	12	1, 2, 3, 4, 6, 12	1, 2, 3, 6	6
	18	1, 2, 3, 6, 9, 18		
5.	24	1, 2, 3, 4, 6, 8, 12, 24		

$$\begin{aligned}
 6. \quad 15 &= \boxed{3} \times 5 \\
 9 &= \boxed{3} \times 3 \\
 \text{GCF} &= 3 \\
 21 &= 3 \times \boxed{7} \\
 35 &= 5 \times \boxed{7} \\
 \text{GCF} &= 7
 \end{aligned}$$

$$\begin{aligned}
 7. \quad 8 &= \boxed{2} \times \boxed{2} \times \boxed{2} \\
 40 &= \boxed{2} \times \boxed{2} \times \boxed{2} \times 5 \\
 \text{GCF} &= 8 \\
 63 &= \boxed{3} \times \boxed{3} \times 7 \\
 54 &= \boxed{3} \times \boxed{3} \times 3 \times 2 \\
 \text{GCF} &= 9
 \end{aligned}$$

$$\begin{aligned}
 8. \quad 16 &= \boxed{2} \times \boxed{2} \times \boxed{2} \times \boxed{2} \\
 48 &= \boxed{2} \times \boxed{2} \times \boxed{2} \times \boxed{2} \times 3 \\
 \text{GCF} &= 16
 \end{aligned}$$

Lesson 19: Exercise A

	Number Sets	Set of Multiples	Common non-zero Multiples	LCM
1.	4	0, 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, ...	12, 24, 36, ...	12
	6	0, 6, 12, 18, 24, 30, 36, 42, 48, ...		
2.	10	0, 10, 20, 30, 40, 50, 60, ...	30, 60, 90	30
	15	0, 15, 30, 45, 60, 75, 90, ...		
3.	9	0, 9, 18, 27, 36, 45, 54, 63, 72, ...	36, 72	36
	12	0, 12, 24, 36, 48, 60, 72, 84, ...		

$$\begin{aligned}
 4. \quad 8 &= \boxed{2} \times 2 \times 2 \\
 10 &= \boxed{2} \times 5 \\
 \text{LCM} &= 40
 \end{aligned}$$

$$\begin{aligned}
 5. \quad 15 &= 3 \times \boxed{5} \\
 25 &= 5 \times \boxed{5} \\
 \text{LCM} &= 75
 \end{aligned}$$

$$\begin{aligned}
 6. \quad 20 &= \boxed{2} \times 2 \times \boxed{5} \\
 30 &= \boxed{2} \times 3 \times \boxed{5} \\
 \text{LCM} &= 60
 \end{aligned}$$

$$\begin{array}{l}
 7. \ 32 = 2 \times 2 \times 2 \times 2 \times 2 \\
 48 = 2 \times 2 \times 2 \times 2 \times 3 \\
 \text{LCM} = 96
 \end{array}$$

$$\begin{array}{l}
 8. \ 81 = 3 \times 3 \times 3 \times 3 \\
 72 = 2 \times 2 \times 3 \times 3 \times 2 \\
 \text{LCM} = 648
 \end{array}$$

$$\begin{array}{l}
 9. \ 14 = 2 \times 7 \quad (\text{LCM} = 252) \\
 12 = 2 \times 2 \times 3 \\
 9 = 3 \times 3
 \end{array}$$

Exercise B

	Number Sets	Set of Multiples	Common Multiples	LCM
1.	3	3, 6, 9, 12, 15, 18, 24, 27, 30, ...	15, 30, ...	15
	5	5, 10, 15, 20, 25, 30, 35, 40, ...		
2.	6	6, 12, 18, 24, 30, 36, 42, 48, ...	12, 24, 36, ...	12
	12	12, 24, 36, 48, 60, ...		
	20	20, 40, 60, 80, 100, 120, 140, ...	100, ...	100
3.	25	25, 50, 75, 100, 125, 150, ...		

$$\begin{array}{l}
 4. \ 6 = 2 \times 3 \\
 9 = 3 \times 3 \\
 \text{LCM} = 18
 \end{array}$$

$$\begin{array}{l}
 5. \ 14 = 2 \times 7 \\
 21 = 3 \times 7 \\
 \text{LCM} = 42 \\
 8. \ 36 = 2 \times 2 \times 3 \times 3 \\
 45 = 3 \times 3 \times 5 \\
 \text{LCM} = 180
 \end{array}$$

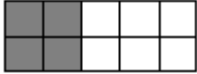
$$\begin{array}{l}
 6. \ 25 = 5 \times 5 \\
 50 = 5 \times 5 \times 2 \\
 \text{LCM} = 50 \\
 9. \ 12 = 2 \times 2 \times 3 \\
 24 = 2 \times 2 \times 3 \times 2 \\
 48 = 2 \times 2 \times 3 \times 2 \times 2 \\
 \text{LCM} = 48
 \end{array}$$

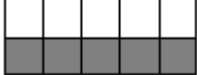
Lesson 20:

Exercise A 1.= 2.≠ 3.≠ 4.= 5.= 6.= 7.≠ 8.=
9.≠ 10. = **Exercise B** 1. YES 2. YES 3.NO

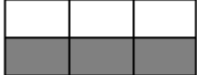
4.YES 5.YES 6.YES 7.NO 8.NO 9.YES
10.NO

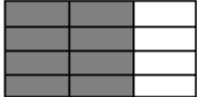
Lesson 21: Exercise A

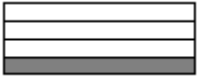
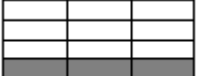
1.  = 
 $\frac{2}{5}$ $\frac{4}{10}$

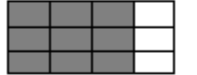
 = 
 $\frac{1}{2}$ $\frac{5}{10}$

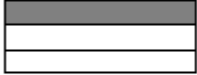
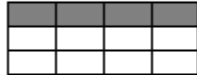
2.  = 
 $\frac{1}{3}$ $\frac{2}{6}$

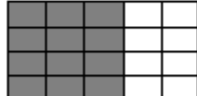
 = 
 $\frac{1}{2}$ $\frac{3}{6}$

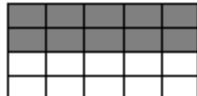
3.  = 
 $\frac{2}{3}$ $\frac{8}{12}$

 = 
 $\frac{1}{4}$ $\frac{3}{12}$

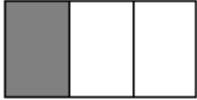
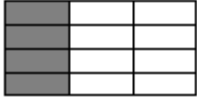
4.  = 
 $\frac{3}{4}$ $\frac{9}{12}$

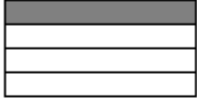
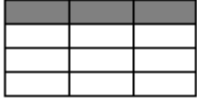
 = 
 $\frac{1}{3}$ $\frac{4}{12}$

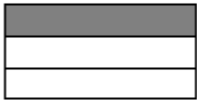
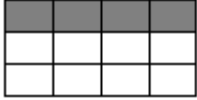
5.  = 
 $\frac{3}{5}$ $\frac{12}{20}$

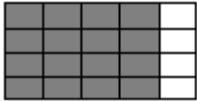
 = 
 $\frac{2}{4}$ $\frac{10}{20}$

Exercise B

1.  = 
 $\frac{1}{3}$ $\frac{4}{12}$

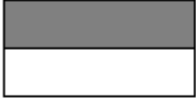
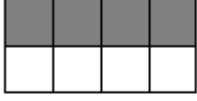
2.  = 
 $\frac{1}{4}$ $\frac{3}{12}$

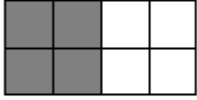
3.  = 
 $\frac{1}{3}$ $\frac{4}{12}$

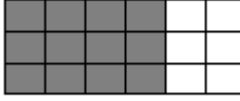
4.  = 
 $\frac{4}{5}$ $\frac{16}{20}$

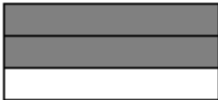
5.  = 
 $\frac{1}{2}$ $\frac{8}{16}$

6.  = 
 $\frac{1}{8}$ $\frac{2}{16}$

7.  = 
 $\frac{1}{2}$ $\frac{4}{8}$

8.  = 
 $\frac{2}{4}$ $\frac{4}{8}$

9.  = 
 $\frac{4}{6}$ $\frac{12}{18}$

10.  = 
 $\frac{2}{3}$ $\frac{12}{18}$

Lesson 22: Exercise A

$$1. \frac{3}{4} \quad 2. \frac{4}{5} \quad 3. \frac{2}{3} \quad 4. \frac{3}{7} \quad 5. \frac{8}{9} \quad 6. \frac{3}{5} \quad 7. \frac{2}{3}$$

$$8. \frac{4}{9} \quad 9. \frac{9}{10} \quad 10. \frac{11}{12} \quad \text{Exercise B}$$

$$1. \frac{2}{3} \quad 2. \frac{1}{5} \quad 3. \frac{1}{9} \quad 4. \frac{4}{5} \quad 5. \frac{3}{8} \quad 6. \frac{1}{4} \quad 7. \frac{1}{6}$$

$$8. \frac{6}{7} \quad 9. \frac{3}{8} \quad 10. \frac{8}{9} \quad \text{Lesson 23: Exercise A}$$

$$1. \frac{3}{4} \quad 2. \frac{5}{9} \quad 3. \frac{8}{8} \text{ or } 14.$$

$$\frac{4}{10} + \frac{4}{10} = \frac{8}{10} \text{ or } \frac{4}{5}$$

$$5. \frac{3}{16} + \frac{7}{16} + \frac{3}{16} = \frac{13}{16} \quad \text{Exercise B}$$

$$1. \frac{7}{8} \quad 2. \frac{5}{8} \quad 3. \frac{7}{12} \quad 4. \frac{2}{4} + \frac{1}{4} = \frac{3}{4} \quad 5.$$

$$\frac{3}{15} + \frac{4}{15} + \frac{2}{15} = \frac{9}{15} \text{ or } \frac{3}{5}$$

$$\text{Lesson 24: Exercise A } 1. \frac{3}{5} \quad 2. \frac{8}{9}$$

$$3. \frac{9}{10} \quad 4. \frac{7}{8} \quad 5. \frac{15}{16} \quad 6. \frac{3}{4} \quad 7. \frac{1}{2} \quad 8. \frac{7}{9} \quad 9. \frac{3}{4}$$

$$10. \frac{4}{5} \quad \text{Exercise B } 1. \frac{4}{9} \quad 2. \frac{7}{12} \quad 3. \frac{17}{20} \quad 4. \frac{14}{15}$$

$$5. \frac{23}{30} \quad 6. \frac{4}{5} \quad 7. \frac{2}{3} \quad 8. \frac{5}{12} \quad 9. \frac{3}{4} \quad 10.$$

$$\frac{13}{20} \quad \text{Lesson 25: Exercise A } 1. 1\frac{5}{8} \text{ or } \frac{13}{8}$$

$$2. 1\frac{1}{10} \text{ or } \frac{11}{10} \quad 3. 1\frac{11}{12} \text{ or } \frac{23}{12} \quad 4. 2\frac{3}{14} \text{ or } \frac{31}{14}$$

$$5. 1\frac{7}{16} \text{ or } \frac{23}{16} \quad 6. 1\frac{1}{2} \text{ or } \frac{3}{2} \quad 7. 1\frac{1}{3} \text{ or } \frac{4}{3}$$

$$8. 1\frac{11}{15} \text{ or } \frac{26}{15} \quad 9. 2\frac{1}{9} \text{ or } \frac{19}{9} \quad 10. 1\frac{6}{7} \text{ or } \frac{13}{7}$$

$$\text{Exercise B } 1. 2 \quad 2. 1\frac{6}{7} \text{ or } \frac{13}{7} \quad 3.$$

$$2\frac{1}{11} \text{ or } \frac{23}{11} \quad 4. 2\frac{4}{21} \text{ or } \frac{46}{21} \quad 5. 2\frac{33}{50} \text{ or } \frac{133}{50} \quad 6.$$

$$1\frac{1}{2} \text{ or } \frac{3}{2} \quad 7. 1\frac{2}{3} \text{ or } \frac{5}{3} \quad 8. 3\frac{1}{2} \text{ or } \frac{7}{2} \quad 9.$$

$$2\frac{1}{3} \text{ or } \frac{7}{3} \quad 10. 2\frac{1}{4} \text{ or } \frac{9}{4}$$

Lesson 26: Exercise A

$$1. \frac{1}{2} + \frac{1}{4} = \frac{3}{4} \quad 2. \frac{3}{6} + \frac{1}{2} = \frac{6}{6} \text{ or } 1$$

$$3. \frac{1}{2} + \frac{1}{3} = \frac{5}{6} \quad 4. \frac{3}{4} + \frac{2}{3} = 1\frac{5}{12} \text{ or } \frac{17}{12}$$

$$5. \frac{2}{4} + \frac{5}{8} = 1\frac{1}{8} \text{ or } \frac{9}{8} \quad \text{Exercise B}$$

$$1. \frac{1}{2} + \frac{2}{6} = \frac{5}{6} \quad 2. \frac{1}{2} + \frac{4}{8} = \frac{8}{8} \text{ or } 1$$

$$3. \frac{1}{2} + \frac{1}{4} = \frac{3}{4} \quad 4. \frac{2}{3} + \frac{2}{4} = 1\frac{2}{12} \text{ or } \frac{7}{6}$$

$$5. \frac{11}{16} + \frac{2}{4} = 1\frac{3}{16} \text{ or } \frac{19}{16} \quad \text{Lesson 27:}$$

$$\text{Exercise A } 1. \sqrt{2} \quad 2. \sqrt{3} \quad 3. \frac{13}{15} \quad 4. 1 \quad 5. 1\frac{1}{12} \text{ or } \frac{13}{12} \quad 6.$$

$$\sqrt{7} \quad \sqrt{8} \quad 1\frac{3}{8} \text{ or } \frac{11}{8} \quad 9. \sqrt{10} \quad 1\frac{2}{5} \quad \text{Exercise B}$$

$$1. \sqrt{2} \quad 2. \sqrt{3} \quad 3. \sqrt{4} \quad 4. 1 \quad 5. \sqrt{6} \quad 6. \frac{7}{10} \quad 7. \sqrt{8} \quad 8. \sqrt{9} \quad 9.$$

$$10. 1\frac{7}{24} \quad \text{Lesson 28: Exercise A } 1. c \quad 2. a \quad 3. e$$

$$4. b \quad 5. f \quad 6. d \quad 7. g \quad 8. J \quad 9. h \quad 10. i \quad \text{Exercise B } 1. a \quad 2. d$$

$$3. e \quad 4. b \quad 5. c \quad 6. g \quad 7. k \quad 8. i \quad 9. j \quad 10. f \quad \text{Lesson 29:}$$

$$\text{Exercise A } 1. 4 \quad 2. 10\frac{1}{2} \quad 3. 12\frac{2}{5} \quad 4. 7\frac{1}{4} \quad 5.$$

$$15\frac{2}{3} \quad 6. 5\frac{9}{10} \quad 7. 8\frac{11}{14} \quad 8. 15\frac{5}{6} \quad 9. 35\frac{1}{3} \quad 10.$$

$$46\frac{11}{12} \quad \text{Exercise B } 1. 5\frac{7}{8} \quad 2. 8\frac{3}{5} \quad 3. 7 \quad 4.$$

$$4\frac{1}{4} \quad 5. 16\frac{1}{6} \quad 6. 6\frac{5}{6} \quad 7. 9\frac{5}{6} \quad 8. 13\frac{1}{5} \quad 9.$$

$$22\frac{7}{20} \quad 10. 27\frac{47}{60} \quad \text{Lesson 30: Exercise A}$$

$$1. 4 \text{ hours} \quad 2. 1\frac{1}{2} \text{ kilograms} \quad 3. 8\frac{9}{10} \text{ meters}$$

$$4. 7\frac{3}{4} \text{ meters}$$

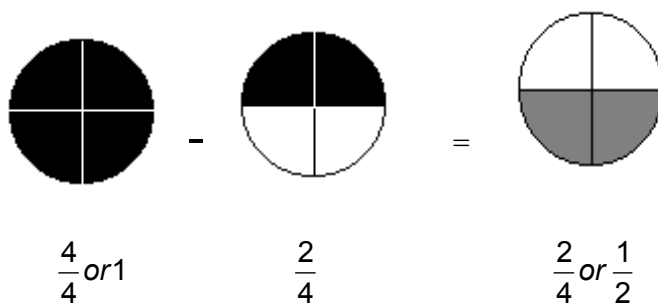
$$5. 60\frac{11}{12} \text{ kilograms} \quad \text{Exercise B } 1. 20 \text{ glasses}$$

$$2. \frac{3}{4} \text{ kilograms} \quad 3. 10\frac{1}{2} \text{ hours} \quad 4. 14\frac{7}{9} \text{ liters}$$

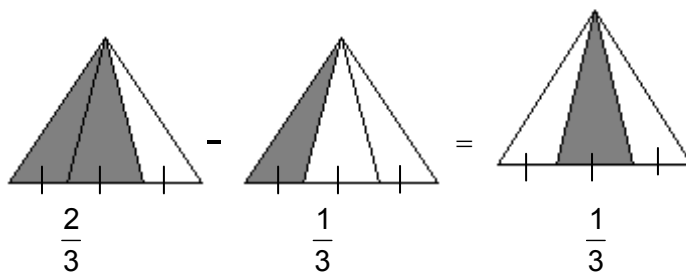
$$5. 9\frac{9}{10} \text{ gallons}$$

Lesson 31: Exercise A

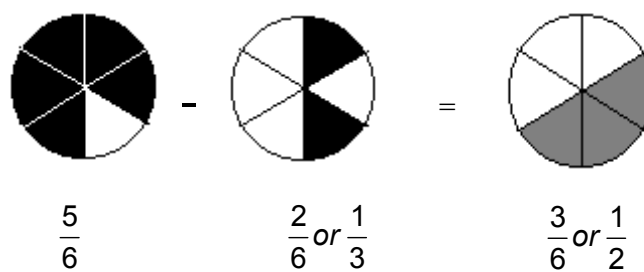
1



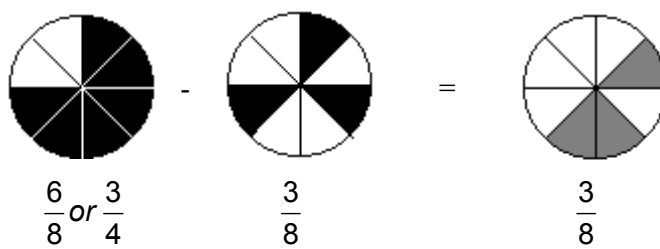
2.



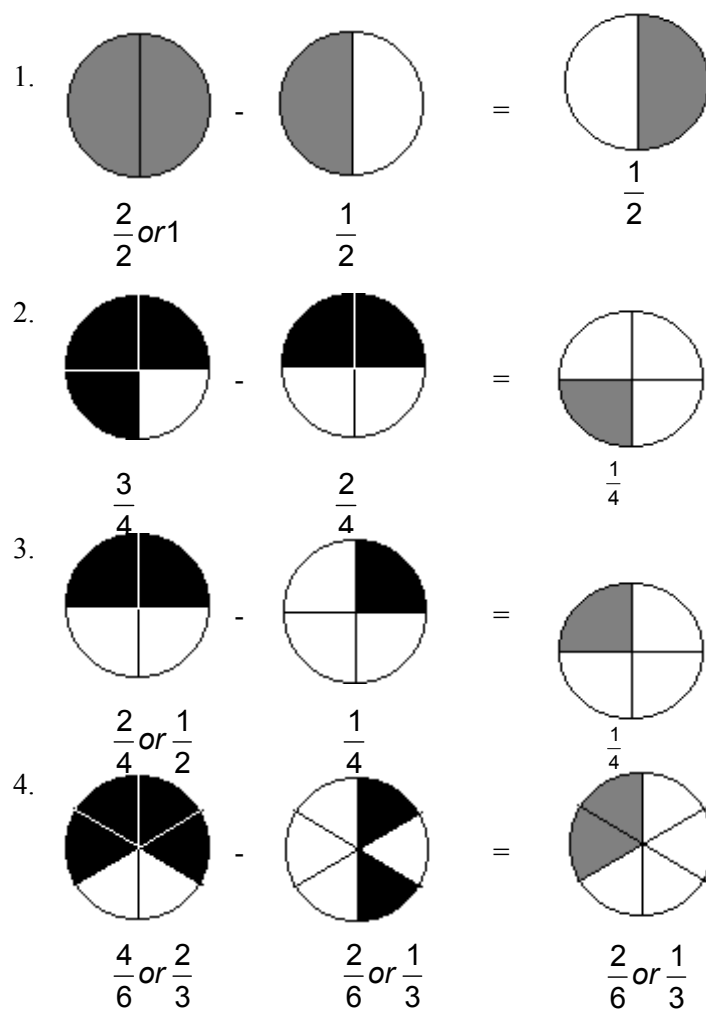
3.



4.



Exercise B



Lesson 32: Exercise A

1. $4\frac{3}{5}$ 2. $13\frac{7}{8}$ 3. $10\frac{5}{6}$ 4. $18\frac{8}{9}$
 5. $24\frac{1}{3}$ 6. $25\frac{2}{3}$ 7. $33\frac{4}{5}$
 8. $35\frac{9}{10}$ 9. $26\frac{3}{5}$ 10. $39\frac{5}{8}$

Exercise B

1. $22\frac{4}{7}$ 2. $21\frac{8}{9}$ 3. $34\frac{1}{3}$ 4. $22\frac{5}{9}$
 5. $37\frac{1}{2}$ 6. $31\frac{4}{5}$ 7. $55\frac{5}{6}$ 8. $46\frac{7}{11}$
 9. $47\frac{2}{3}$ 10. $51\frac{4}{5}$

Lesson 33:

- Exercise A** 1. $7\frac{2}{5}$ 2. $9\frac{3}{8}$ 3. $16\frac{7}{9}$
 4. $28\frac{5}{16}$ 5. $34\frac{1}{2}$ 6. $41\frac{1}{6}$ 7. $35\frac{2}{3}$
 8. $42\frac{2}{5}$ 9. $49\frac{3}{7}$ 10. $70\frac{1}{4}$

- Exercise B** 1. $8\frac{5}{7}$ 2. $11\frac{5}{6}$ 3. $18\frac{11}{14}$
 4. $22\frac{11}{12}$ 5. $36\frac{1}{2}$ 6. $40\frac{1}{3}$ 7. $47\frac{3}{5}$
 8. $51\frac{1}{10}$ 9. $67\frac{9}{11}$ 10. $73\frac{1}{3}$

Lesson 34: Exercise A 1. $\frac{1}{2}$ 2. $1\frac{3}{4}$

3. $2\frac{1}{6}$ 4. $5\frac{1}{8}$ 5. $1\frac{1}{5}$ 6. $1\frac{2}{7}$ 7. $1\frac{3}{5}$

8. $2\frac{5}{8}$ 9. $1\frac{1}{4}$ 10. $5\frac{1}{8}$

Exercise B

1. $5\frac{1}{2}$ 2. $1\frac{3}{4}$ 3. $8\frac{4}{5}$ 4. $6\frac{2}{3}$ 5. $7\frac{3}{8}$
 6. $15\frac{7}{12}$ 7. $1\frac{1}{2}$ 8. $4\frac{1}{2}$ 9. $3\frac{1}{3}$ 10. $7\frac{5}{8}$

Lesson 35: Exercise A 1. $\frac{1}{4}$ 2. $\frac{1}{3}$

3. $\frac{1}{2}$ 4. $\frac{1}{2}$ 5. $\frac{1}{3}$

Exercise B 1. $\frac{5}{14}$

2. $\frac{1}{10}$ 3. $\frac{4}{9}$ 4. $\frac{1}{8}$ 5. $\frac{9}{12}$ or $\frac{3}{4}$

Lesson 36: Exercise A 1. $12\frac{7}{10}$ 2. $15\frac{1}{6}$

3. $4\frac{1}{15}$ 4. $3\frac{6}{35}$ 5. $8\frac{1}{2}$ 6. $4\frac{1}{4}$ 7. $10\frac{1}{20}$

8. $3\frac{3}{4}$ 9. $13\frac{1}{9}$ 10. $6\frac{1}{6}$

Exercise B

1. $16\frac{1}{6}$ 2. $7\frac{31}{40}$ 3. $4\frac{1}{6}$ 4. $12\frac{3}{35}$ 5. $9\frac{11}{14}$

6. $10\frac{1}{8}$ 7. $5\frac{4}{45}$ 8. $12\frac{53}{63}$ 9. $7\frac{5}{12}$ 10.

- $8\frac{9}{10}$

Lesson 37: Exercise A 1. $5\frac{7}{12}$

2. $4\frac{4}{15}$

3. $2\frac{1}{4}$ 4. $4\frac{19}{40}$ 5. $6\frac{1}{10}$ 6. $3\frac{3}{5}$ 7. $2\frac{5}{6}$

8. $8\frac{1}{2}$ 9. $5\frac{2}{15}$ 10. $1\frac{1}{2}$

Exercise B

1. $2\frac{1}{20}$

2. $3\frac{1}{4}$ 3. $2\frac{1}{4}$ 4. $5\frac{7}{15}$ 5. $2\frac{1}{2}$ 6. $3\frac{3}{14}$

7. $2\frac{7}{24}$ 8. $1\frac{7}{12}$ 9. $1\frac{5}{6}$ 10. $2\frac{7}{8}$

Lesson 38:

Exercise A 1. How many dozens of pan de sal were not sold? 2. Baked 5 dozens/ Sold 3 $\frac{3}{4}$ dozens 3. Dozens of pan de sal not sold 4.

Subtraction 5. $5 - 3\frac{3}{4} = n$

$$5 = 4\frac{4}{4}$$

$$3\frac{3}{4} = 3\frac{3}{4}$$

$$1\frac{1}{4} \text{ dozens}$$

7. $1\frac{1}{4}$ dozens 8. Addition

9. Add $1\frac{1}{4}$ and $3\frac{3}{4}$. Check if the sum is 5.

10. The minuend, 5

Exercise B 1. $2\frac{13}{20}$ kg

2. $2\frac{1}{4}$ m 3. $5\frac{1}{2}$ m 4. $\frac{1}{20}$ of the cake 5.

$7\frac{1}{2}$ **Lesson 39: Exercise A** 1. $1\frac{1}{6}$ kg. 2.

$1\frac{5}{6}$ liters 3. None 4. $16\frac{2}{5}$ 5. $8\frac{3}{4}$ kg

Exercise B 1. $1\frac{2}{3}$ kg 2. $1\frac{4}{7}$ pizzas 3.
 $1\frac{2}{3}$ hectares 4. $6\frac{1}{12}$ kg

Lesson 40: Exercise A

1. a.  b.  c. $1/6$

2. a.  b. 

Exercise B 1. $\frac{1}{2} \times \frac{1}{2}$ 2. $\frac{1}{4} \times \frac{1}{3}$

3. $\frac{1}{4} \times \frac{1}{2}$ 4. $\frac{1}{4} \times \frac{2}{4}$ 5. $\frac{1}{3} \times \frac{1}{5}$

Lesson 41: Exercise A

1. $\frac{1}{3} \times \frac{1}{2}$ 2. $\frac{2}{4} \times \frac{1}{4}$ 3. $\frac{1}{2} \times \frac{1}{5}$ 4. $\frac{1}{2} \times \frac{2}{3}$

5. $\frac{3}{4} \times \frac{1}{2}$ 6. $\frac{1}{6} \times \frac{1}{2}$ 7. $\frac{2}{3} \times \frac{1}{4}$ 8. $\frac{2}{5} \times \frac{1}{2}$

9. $\frac{2}{4} \times \frac{1}{2}$ 10. $\frac{1}{2} \times \frac{1}{8}$ **Exercise B** 1.a 2.c 3.b

4.c 5.b 6.a 7.c 8.b 9.a 10.c **Lesson 42:**

Exercise A 1. $\frac{1}{4} \times \frac{2}{9} = \frac{1}{18}$ 2. $\frac{2}{3} \times \frac{3}{5} = \frac{2}{5}$

3. $\frac{3}{4} \times \frac{2}{8} = \frac{3}{16}$ 4. $\frac{1}{5} \times \frac{4}{8} = \frac{1}{10}$ 5. $\frac{2}{5} \times \frac{5}{9} = \frac{2}{9}$

6. $\frac{7}{8} \times \frac{1}{5} = \frac{7}{40}$ 7. $\frac{1}{3} \times \frac{1}{5} = \frac{1}{15}$ 8.

$\frac{2}{5} \times \frac{1}{6} = \frac{1}{15}$ 9. $\frac{3}{5} \times \frac{1}{4} = \frac{3}{20}$ 10. $\frac{1}{3} \times \frac{6}{8} = \frac{1}{4}$

Exercise B

1. $\frac{1}{6}$ 2. $\frac{1}{8}$ 3. $\frac{3}{8}$ 4. $\frac{3}{20}$ 5. $\frac{4}{63}$ 6. $\frac{3}{20}$ 7. $\frac{2}{7}$

8. $\frac{1}{6}$ 9. $\frac{1}{2}$ 10. $\frac{1}{2}$ **Lesson 43: Exercise A** 1.5

2.8 3.4 4. $1\frac{1}{2}$ 5. $1\frac{1}{2}$ 6.1 7. $1\frac{1}{2}$ 8. $10\frac{1}{2}$ 9.1 10.

$11\frac{1}{4}$ **Exercise B** 1. 4 2. $6\frac{3}{4}$ 3. $3\frac{1}{3}$ 4. $3\frac{3}{7}$

5. $3\frac{5}{9}$ 6. 20 7. $3\frac{3}{7}$ 8. 12 9. $8\frac{1}{3}$ 10. 4

Lesson 44: Exercise A 1. 2 2. $1\frac{2}{3}$ 3. $1\frac{4}{5}$ 4.

$2\frac{13}{28}$ 5. $5\frac{4}{5}$ 6. $5\frac{1}{10}$ 7. 2 8. $\frac{13}{45}$ 9. $2\frac{1}{6}$ 10.

$11\frac{1}{5}$ **Exercise B** 1.e 2.b 3.j 4.a 5.f 6.c 7.d

8.i 9.g 10.h **Lesson 45: Exercise A** 1. $6\frac{2}{3}$

2. $18\frac{1}{14}$ 3. $8\frac{1}{2}$ 4. 4 5. 35 6. $3\frac{1}{2}$ 7. $11\frac{1}{3}$

8. $6\frac{9}{10}$ 9. 36 10. $37\frac{1}{2}$ **Exercise B** 1. $5\frac{3}{5}$ 2.

$1\frac{5}{7}$ 3. 8 4. 15 5. $16\frac{1}{10}$ 6. $7\frac{5}{16}$ 7. 4 8.

22 9. 21 10. $2\frac{26}{27}$ **Lesson 46: Exercise A**

1. $\frac{1}{3}$

2. $\frac{1}{6}$ 3. $\frac{1}{6}$ 4. $\frac{1}{8}$ 5. 4 6. $3\frac{1}{3}$ 7. $3\frac{1}{2}$

8. $\frac{3}{4}$ 9. $\frac{9}{14}$ 10. $\frac{4}{5}$ **Exercise B** 1. $\frac{1}{5}$

2. $\frac{6}{25}$ 3. $\frac{2}{9}$ 4. $\frac{1}{4}$ 5. 3 6. 2 7. $1\frac{1}{3}$ 8. $\frac{1}{3}$ 9.

$\frac{2}{5}$ 10. $1\frac{1}{15}$ **Lesson 47: Exercise A** 1. liters

of paint used 2. had $2\frac{1}{4}$ liters and used $\frac{1}{3}$ of

total paint 3. Multiplication 4. $\frac{1}{3} \times 2\frac{1}{4} = n$

5. $\frac{3}{4}$ liters 6. number of sq. meters the

gardener weed 7. Can clean $10\frac{2}{3}$ sq. meters

in 1 hour. 8. Multiplication

9. $10\frac{2}{3} \times 1\frac{3}{4} = n$ 10. $18\frac{2}{3}$ m² **Exercise B**

1. $1\frac{5}{6}$ hours 2. $9\frac{3}{5}$ km 3. $1\frac{11}{15}$ 4. 30

Lesson 48: Exercise A 1. 6:4 or 3:2

2. 3:5 3. 5:1 4. 3:5:3 5. 3:6 or 1:2 6. 3:1

7. 7:2 7. 3:4 8. 8:5 9. 8:5:2 10. 2:3

Exercise B 1. 3:1 2. 5:1 3. 1:1 4. 2:2 5. 7:5

Lesson 49: Exercise A 1. $\frac{3}{12}$ or 3:12 or $\frac{1}{4}$

2. 1:6; $\frac{1}{6}$ 3. 2:3; $\frac{2}{3}$ 4. 8:4 or 2:1; $\frac{8}{4}$ or $\frac{2}{1}$ 5.

12:10; $\frac{12}{10}$ 6. 2:80 or 1:40; $\frac{2}{80}$ or $\frac{1}{40}$ 7.

$\frac{4}{1}$; 4:1 8. 10:3; $\frac{10}{3}$ 9. 24:7 or $\frac{24}{7}$ 10. 7:1

or $\frac{7}{1}$ **Exercise B**

1. 1:6, $\frac{1}{6}$ 2. 4:1, $\frac{4}{1}$ 3. 8:5, $\frac{8}{5}$ 4. 2:3, $\frac{2}{3}$ 5.

1:3, $\frac{1}{3}$ 6. 1:2, $\frac{1}{2}$ 7. 1:4, $\frac{1}{4}$ 8. 2:3, $\frac{2}{3}$ 9. 1:3,

$\frac{1}{3}$ 10. 4:5, $\frac{4}{5}$ **Lesson 50: Exercise A 1.** 0.3

2. 0.56 3. 0.05 4. 0.8 5. 0.035 6. $\frac{9}{10}$ 7.

$\frac{4}{100}$ or $\frac{1}{25}$

8. $\frac{65}{100}$ or $\frac{13}{20}$ 9. $\frac{133}{1000}$ 10. $\frac{735}{1000}$ or $\frac{147}{200}$

Exercise B 1. 0.4 2. 0.11 3. 0.081 4. 0.00055 5. 0.006 6. 0.0012 7. 0.037

8. 0.15 9. 0.9 10. 0.27 **Lesson 51: Exercise A 1.** Tenths 2. Hundredths 3. Tenths 4.

Thousandths 5. Hundredths

6. Tens 7. Tenths 8. Ten thousandths

9. ten thousandths 10. Tenths **Exercise B 1.**

6,9,4 2. 2,6,5 3. 6,5,7 4. 9,7,8 5. 1,3,2

Lesson 52: Exercise A 1. 0.84

2. 0.7 3. 0.5 4. 0.479 5. 0.567 6. 1.54

7. 5.644 8. 1.24 9. 0.7 10. 2.679 **Exercise B**

1. 0.3 0.31 0.312

2. 0.2 0.16 0.165

3. 0.6 0.58 0.584

4. 0.4 0.37 0.37

5. 0.5 0.53 0.529

6. 0.7 0.68 0.678

7. 0.3 0.28 0.284

8. 0.5 0.53 0.526

9. 0.1 0.14 0.137

10. 2 2 2

Lesson 53: Exercise A 1. 0.755 2. 10.83 3. 0.796 4. 0.866 5. 0.0841 6. 1.519 7. 1.908 8.

7.978 9. 1.533 10. 2.593 **Exercise B 1.** 0.92 2. 0.677

3. 0.696 4. 0.694 5. 0.968 6. 1.445

7. 1.574 8. 1.058 9. 1.113 10. 1.7

Lesson 54: Exercise A 1. 14.147

2. 11.392 3. 12.91 4. 6.663 5. 98.06

6. 6.342 7. 40.521 8. 17.98 9. 18.265 10.

14.723 **Exercise B 1.** 14.262

2. 50.442 3. 15.112 4. 39.013 5. 12.545 6.

4.19 7. 17.165 8. 11.104 9. 32.115 10. 33.59

Lesson 55: Exercise A

1. 0.423 2. 0.232 3. 0.324 4. 0.29

5. 0.331 6. 0.146 7. 0.275 8. 0.664

9. 0.095 10. 0.298 **Exercise B 1.** 0.912 2.

0.312 3. 0.171 4. 0.221 5. 0.423

6. 0.334 7. 0.276 8. 0.614 9. 0.386

10. 0.246 **Lesson 56: Exercise A**

1. 1.382 2. 4.054 3. 2.672 4. Regroup

5. 1.12 6. 7.686 7. 7.889 8. 14.887

9. 1.867 10. 1.521 **Exercise B 1.** 4.158 2.

5.275 3. 28.458 4. 18.849 5. 1.442

6. 3.767 7. 4.636 8. 19.164 9. 26.889 10.

16.75 **Lesson 57: Exercise A 1.** 2.78 m,

0.02 m 2. A. 464.85, 35.15

3. total cost: 49.25, 50.75 4. 104.25 kg 5.

2.75 **Exercise B 1.** 28.5 kg.

2. P184.15 3. P520.00 4. 14.2

5. P214.50 **Lesson 58: Exercise A**

1. P44.45 2. 20.46 3. P170.05

4. P379.35 5. 4.5 kg. **Exercise B**

1. P46.35 2. 42.6kg 3. 0.25 m 4. 1 kg

5. 8.1 **Lesson 59: Exercise A 1.** Double

shaded region: 42 squares 2. 32 squares 3.

36 squares 4. 6 squares 5. 12 squares

Exercise B 1. $0.1 \times 0.2 = n$

2. $0.1 \times 0.1 = n$ 3. $0.2 \times 0.2 = n$

4. $0.5 \times 0.2 = n$ 5. $0.4 \times 0.3 = n$ **Lesson 60:**

Exercise A 1. 2, 0.48 2. 2, 0.2 or 0.20 3. 2,

0.16 4. 2, 0.36 5. 2, 0.18

6. $0.9 \times 0.5 = n$; $n = 0.45$ 7. $0.8 \times 0.7 = n$;

$n = 0.56$ 8. $0.4 \times 0.2 = n$; $n = 0.08$

9. $0.6 \times 0.7 = n$; $n = 0.42$ 10. $0.6 \times 0.9 = n$; n

$= 0.54$ **Exercise B 1.** 0.35 2. 0.56 3. 0.12 4.

0.16 5. 0.72 6. 0.28 7. 0.27 8. 0.54 9. 0.35

10. 0.48 **Lesson 61: Exercise A 1.** 0.054 2.

0.056 3. 0.056 4. 0.12 5. 0.111 6. 0.155 7.

0.511 8. 0.105 9. 0.048 10. 0.096 **Exercise**

B 1. 0.076, 0.114, 0.171 2. 0.292, 0.438, 0.657 3. 0.02, 0.03, 0.045 4. 0.096, 0.144, 0.216 5. 0.152, 0.228, 0.342 6. $0.7 \times 0.84 = n$; 0.588 7. $0.3 \times 0.44 = n$; 0.132 8. $0.9 \times 0.72 = n$; 0.648 9. $0.06 \times 0.64 = n$; 0.384 10. $0.7 \times 0.27 = n$; 0.189 **Lesson 62: Exercise A** 1. Count the decimal place in the product is equal to the sum of the decimal places in the factors 2. From right to left 3. 0.210 4. 0.261 5. 0.736 6. 0.301 7. 0.348 **Exercise B 1.** Whole numbers 2. Number of decimal places 3. equal 4. Right to left 5. multiplicand 6. multiplier 7. partial product 8. product **Lesson 63: Exercise A 1.** 14. 6 2. 17 3. 1097.6 4. 138.264 5. 1304.1 6. 127.88 7. 1327.04 8. 62.92 9. 181.44 10. 3226.02 **Exercise B 1.** 954.2 2. 130.2 3. 1.84 4. 1028.16 5. 1975.2 6. 1393.2 7. 18345.6 8. 23887.36 9. 2890.44 10. 4261.95 **Lesson 64: Exercise A 1.** E 2.d 3.b 4.a 5. C **Exercise B 1.** B 2.a 3.c 4.c 5.A 6. 377.323 7. 480.96 8. 5.7855 9. 16.3625 10. 3.5392 **Lesson 65: Exercise A 1.** 9 2. 1.2 3. 7.4 4. 208.3 5. 191 6. 7547 7. 408.1 8. 79 9. 386.2 10. 80 **Exercise B 1.** 10 2. 10 3. 10 4. 100 5. 100 6. 10 7. 10 8. 100 9. 100 10. 100 **Lesson 66: Exercise A 1.** 2 2. 3 3. 3 4. 0.2348 5. 0.07 6. 0.215 7. 0.0324 8. 0.246 9. 0.3543 10. 9.7125 **Exercise B 1.** 0.28 2. 19.762 3. 0.308 4. 0.32578 5. 0.016505 6. 98.76 7. 24.635 8. 0.6542 9. 0.7431 10. 1.2342 **Lesson 67: Exercise A 1.** $7 \times 51.8 = N$; 362.6 km 2. $5.4 \times 70.75 = N$; P382.05 3. $10 \times P32.75 = N$; P327.5 4. $2 \times 0.4 = N$; 0.8 kg 5. $6 \times P33.25 = N$; P199.5 **Exercise B 1.** P202.95 2. 9 3. P2250.00 4. P2163.00 5. 10.35 **Lesson 68: Exercise A 1.** 0.4 2. It would be made up of 10 small squares 3. 0.1 4. 0.25 5. 5 small squares 6. 0.05 **Exercise B 1.** A. 8 b 0.25 c. Php 2.00 $\div 0.25 = 8$ 2. a.50 b. 0.10 c. $5.00 \div 0.10 = 50$ 3. a. 0.8 b. 5 c. 0.05 d $0.8 \div 16 = n$ e. 0.05 **Lesson 69:** 1.e 2.a 3.d 4.b 5.c 6.i 7.f 8.g 9. J 10.h **Exercise B 1.** 0.0205 2. 0.0403 3. 0.0901 4. 0.023 5. 0.025 **Lesson 70: Exercise A 1.** 5. 6. 2.6 3. 1.5 4. 0.7 5. 50 6. $\sqrt{}$ 7. X 8. $\sqrt{}$ 9. $\sqrt{}$ 10. x

Exercise B 1. 1.2 2. 3.2 3. 6.3 4. 0.63 5. 4.08 6. 3.1 7. 5.4 8. 2.3 9. 1.3 10. 0.8 **Lesson 71: Exercise A 1.** 0.35 gram of vitamin, 0.05 gram 2. number of tablets to be placed in the container 3. Division 4. $0.35 \div 0.05 = N$ 5. 7 6. 3.5 km, twice as far as the girl scouts 7. Divide 8. $3.5 \div 2 = n$ 9. 1.75 km. **Exercise B 1.** 3 2. 9 3. P31.50 4. 164 5. 9 **Lesson 72: Exercise A 1.** 100 2. 40 3. 30 4. 20 5. Percent 6. % 7. 20% 8. 30% 9. 40% 10. 10% **Exercise B 1.** 28 % 2. 40% 3. 52% 4. 28% 5. 58% **Lesson 73: Exercise A 1.** $\frac{2}{5}$ or 2:5, 40% 2. $\frac{3}{8}$, 3:8, 37.5% 3. $\frac{1}{4}$ or 1:4, 25% 4. $\frac{1}{6}$ or 1:6, 5. $\frac{2}{5}$ or 2:5, 40% **Exercise B 1.** 1. 75% 2. 50% 3. 66.666% 4. 20% 5. 80% II. 1. $\frac{17}{20}$ 2. $\frac{9}{10}$ 3. $\frac{2}{1}$ 4. $\frac{11}{100}$ 5. $\frac{8}{25}$ **Lesson 74:** 1. 100 2. 3 3. 2 4. Division 5. Left 6. 25% 7. 8% 8. 12.5% 9. 0.365 10. 0.07 **Exercise B 1.** 0.002 2. 0.845 3. 0.156 4. 3.00 5. 0.99 6. 62% 7. 175% 8. 5% 9. 1.8% 10. 212% **Lesson 75: Exercise A 1.** $\frac{3}{5}$, 60% 2. 0.8, 80% 3. 0.333, 33.3% or $33\frac{1}{3}\%$ 4. $2\frac{1}{4}$ or 9:4, 2.25 5. $\frac{57}{100}$, 57.1% 6. 0.5, 50% 7. $\frac{16}{25}$, 0.65 8. $\frac{3}{4}$, .75 9. $\frac{1}{100}$, 0.01 10. 0.15, 15% **Exercise B 1.** 1.0.166, 16.6% 2. 0.7, 70% 3. 0.6, 60% 4. 0.5, 50% 5. 0.333, 33.3% 6. 0.625, 62.5% 7. 0.3, 30% 8. 0.666, 66.6% 9. 0.875, 87.5% 10. 0.04, 4% **Lesson 76: Exercise A 1.** Scalene triangle 2. equilateral triangle 3. isosceles triangle 4. Rhombus 5. Parallelogram 6. trapezoid 7. Pentagon 8.

Hexagon 9. heptagon 10. Decagon **Exercise B 1.g** 2.j 3.d 4.c

5.b 6.e 7.f 8.a 9.h 10.i **Lesson 77: Exercise A 1.** 6 2.octagon 3.triangle 4.11 5.4 6.12 7.nonagon 8.decagon 9.heptagon 10.pentagon **Exercise B** (answers may vary) **Lesson 78:**

Exercise A 1. X 2.√ 3.x 4.√ 5. X 6.x 7.√ 8. √ 9. √ 10. X **Exercise B** (answers may vary)

Lesson 79:

Exercise A 1. D 2.c 3.a 4.c 5.A 6.d 7. C 8.b 9.c **Exercise B** 1.e 2.b 3.f 4.a 5.c 6.d 7-10. (answers may vary)

Lesson 80:Exercise A 1. Circumference 2. Diameter 3.radius

4. Pi (π) 5. π 6.diameter 7. divisor
8. $C = 2\pi r$ 9. $C = \pi d$ 10. 22/7 **Exercise B**
1. $C = 2\pi(4.2)$
2. $C = 2\pi(6.5)$ 3. $C = \pi(19)$
4. $C = \pi(7.3)$ 5. $C = \pi(12)$
6. $C = \pi(18)$ 7. $C = \pi(21)$ 8. $C = \pi(19)$
9. $C = 2\pi(3.6)$ 10. $C = 2\pi(24)$

Lesson 81: Exercise A

1. 12 cm, 75.36 cm 2. 25 dm, 78.5 dm
3. 8 m, 50.24 m 4. 48.4dm, 151.976dm
5. 4.5 m, 28.26 m 6. 106 cm, 332.84 cm
7. 19 dm, 119.32 dm 8. 16.8 m, 52.752 m 9. 6 cm, 37.68 cm 10. 18 m, 56.52 m

Exercise B 1. 18.84 dm 2. 52.124 m 3. 53.38 cm 4. 1.256 m 5. 166.42 cm 6. 263.76 cm 7. 37.68 dm 8. 62.8 m

9. 191.54 cm 10. 34.54 m **Lesson 82:**

Exercise A 1. Circumference 2. diameter of 52 meters 3. Around the circular pool 4. $3.14 \times 52 \text{ m} = C$ 5. 163.28 meters 6. Radius 7. circumference of 235.5 m 8. Division 9. 37.5 meters **Exercise B 1.** 285 meters 2. 25.12m 3. 75.36m 4. 439.6 centimeters 5. 157 centimeters **Lesson 83: Exercise A 1.** 24 square cm 2. 27 square m 3. 44.8 dm^2 4. 216 cm^2

5. 173.28 m^2 **Exercise B 1.** $A = B \times h$ 2. Perpendicular to each other 3. Square units 4. Altitude 5. divide the area by the base to get the height 6. divide the area by the

height to get the base 7. 15 m 8. 8m 9. 575 cm^2

10. 375 m^2 **Lesson 84: Exercise A**

1. trapezoid 2. Two 3. $A = \frac{b1 + b2}{h} \times 2$

4. 65 m^2 5. 204 cm^2 6. 480 dm^2

7. 952 cm^2 8. 756 m^2

Exercise B 1. $A = \frac{1}{2}(b1 + b2)h$

2. 45 cm^2 3. 84 m^2 4. 98 dm^2 5. 4 cm

6. 4.3 m 7. 5 dm 8. 4 cm 9. 4.3 cm 10. 5 dm

Lesson 85: Exercise A. 1. center 2. radius 3. diameter 4. arc 5. circumference 6. 31.4 cm^2 7. 0.1256 dm^2 8. 50.24 m^2 9. 2826 m^2 10. 153.86 cm^2 **Exercise B 1.** $A = \pi r^2$ 2.

Expressed in square unit of measurements. 3. 6.5 42.25 132.67 cm^2 4. 3.1

9.61 30.18 dm^2 5. 11 121

379.94 m^2 6. 9 81 254.34 m^2 7. 15 225 706.5 dm^2 8. 10 100 314 cm^2 **Lesson 86:**

Exercise A 1. number of square meters a fishpond has 2. base of 18 meters and height of 15 meters 3. multiplication $4. 18 \text{ m} \times 15 \text{ m} = n$ 5. 270 m^2 6. height of 40 meters, bases of 38 meters and 64 meters 7. $(38 \text{ m} + 64 \text{ m}) \times 40 \text{ m} \div 2 = n$ 8. $(38 \text{ m} + 64 \text{ m} = n$

Exercise B 1. 2461.76 cm^2 2. 0.785 m^2 3. 544 m^2 4. 5547 m^2 5. 2304 dm^2

Lesson 87 Exercise A 1. solid figures/space figures 2. cube 3. 6 4. volume 5. length, width, height 6. cm^3 7. cm^3 8. m^3 9. m^3 10. m^3 **Exercise B 1.** cm^3 2. m^3 3. cm^3 4. m^3 5. cm^3 6. m^3 7. cm^3 8. m^3 9. cm^3 10. m^3

Lesson 88: Exercise A 1. 1 2. 10 3. 1 4. 100 5. 1 6. 1000 7. 1 8. 1 000 000 9. 12 000 10. 0.018 **Exercise B 1.** multiplication 2.

division 3. decimeter 4. decimeter 5. 4,000 6. 180 7. 21,000,000 8. 0.172 9. 0.074 10.

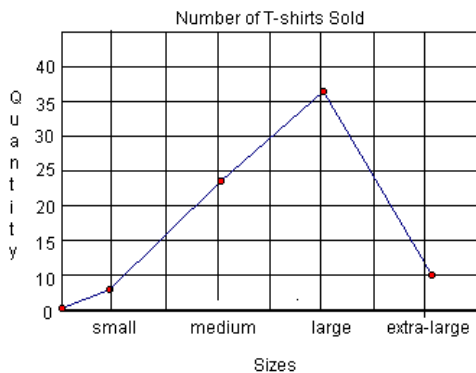
0.123456 **Lesson 89: Exercise A 1.** cube 2. 6 3. 3 4. 27 5. equal 6. rectangular prism 7. solid 8. 3 9. length, width, height **Lesson 90:**

Exercise A 1. 15 m, 4 m, 10.5 m, 630 m^3 2. 15 cm, 15 cm, 15 cm, 3375 cm^3 **Lesson 91: Exercise A 1.** volume of an aquarium 2.

36 cm, 32 cm, 30 cm 3. multiplication 4. $36 \text{ cm} \times 32 \text{ cm} \times 30 \text{ cm} = n$ 5. $34,560 \text{ cm}^3$ 6. cube 7. edge of 18 cm 8. multiplication 9. $V = s \times s \times s$ **Exercise B 1.** 13, 824 cm^3 2. 125 m^3 3. 720 m^3 4. 255.5 m^3 5. 44 cm **Lesson**

92: Exercise A 1. e 2. c 3. f 4. b 5. a 6. d 7. scale 8. mercury 9. glass tube 10. glass bulb
Exercise B 1. mercury, scale, glass tube, glass bulb 2. glass tube 3. glass bulb 4. mercury 5. scale 6. thermometer 7. mercury 8. scale 9. glass bulb 10. glass tube
Lesson 93: Exercise A 1. 37°C 2. 35.5°C 3. 38.5°C 4. 36°C 5. 38°C 6. 40°C 7. 37.5°C 8. 35°C 9. 36.50°C 10. 39°C
Exercise B 1. 100°C 2. 0°C 3. 20°C 4. 35°C 5. 37°C 6. b 7. c 8. a 9. c 10. c
Lesson 94: Exercise A 1. $31^{\circ}\text{C} - 6.5^{\circ}\text{C} = \text{N } 24.5^{\circ}\text{C}$ 2. $27^{\circ}\text{C} - 15^{\circ}\text{C} = \text{N } 12^{\circ}\text{C}$ 3. $32^{\circ}\text{C} - 26^{\circ}\text{C} = \text{N } 6^{\circ}\text{C}$ 4. $37^{\circ}\text{C} + 2^{\circ}\text{C} = \text{N } 39^{\circ}\text{C}$ 5. $39.5^{\circ}\text{C} - 38.2^{\circ}\text{C} = \text{N } 1.3^{\circ}\text{C}$
Exercise B 1. 28.4°C 2. 10°C 3. 29°C 4. 39°C 5. 37°C
Lesson 95: Exercise A 1. scores in math 2. weeks 3. line graph 4. Mae's Weekly Scores in Mathematics Five 5. x-axis 6. y-axis 7. 10 8. 3rd week 9. 1st and 4th week
Exercise B 1. zero 2. 90% 3. 75% 4. 3rd grading 5. 15% 6. 85% 7. 10% 8. 80% 9. ratings 10. 82.5%
Lesson 96: Exercise A 1. line graph 2. y-axis 3. x-axis 4. vertex/zero 5. x-axis 6. y-axis 7. title 8. truncated / at intervals
Exercise B 1. Weight of Jessie in Eight Months 2. 32 kg, 30 kg, 33 kg 3. the same weight 4. eight
Lesson 97: Exercise A 1. title 2. y-axis 3. x-axis 4. vertex 5-10.

1. Saturday 2. Monday 3. P1700.00 4. P700 5. P24,300.00
Lesson 98: Exercise A 1. north 2. south 3. east 4. west 5. northwest 6. southwest 7. northeast 8. southeast 9-10. Scale drawing is used to represent usually a larger object. The parts, however, are shrunk proportionally.
Exercise B 1. health center 2. grocery 3. church 4. market & health center 5. north of the grocery building 6. west of the municipal library 7. south of the bank 8. central school & municipal library 9. health center 10. bus terminal
Lesson 99: Exercise A 1. 13 m x 9 m 2. 4 cm x 3.5 cm 3. 3.5 cm x 3.5 cm 4. 3.5 cm x 3.5 cm 5. $A = 117\text{ cm}^2$ 6. $A = 12.25\text{ cm}^2$ 7. 13 m x 9 m 8. 6 m x 4.5 m 9. 3.5 m x 4.5 m 10. 4 m x 3.5 m
Exercise B 1. I---I = 20 m 2. 5 H 3. 20 H 4. 22 H 5. 6 H 6. 7 H 7. 15 H 8. 300 m 9. 140 m 10. 120 m



Exercise B 1-5.

