JANUARY
Makugihon

FEBRUARY
Mahigugmaon

MARCH
Matinabangon

APRIL
Matinahuron

MAY
Mahapsay og Malimpyo

JUNE
Maabtik og Musunod sa Insaktong Oras

JULY
Maantigo og Maabilidad

AUGUST
Maginhunahunaon para sa Uban

SEPTEMBER
Madaginoton

OCTOBER
Matinud-anon

NOVEMBER
Masaligan

DECEMBER
Maalampuon

Republic of the Philippines
Department of Education
Regional Office IX, Zamboanga Peninsula

5

Zest for Progress
Zeal of Partnership

# Mathematics

## Quarter 3 - Module 2
## Finding Percentage

Name of Learner: _____

Grade & Section: _____

Name of School: _____

# What I Need to Know

This module contains one lesson:
**Lesson 2-** Finding Percentage in a Given Problem

After going through this module you are expected to:

1. Find the percentage in a given problem
2. Solve routine and non-routine problems involving percentage using appropriate strategies and tools**.**

# What I Know

**Directions:** Write the letter of the correct answer on the space before the number.

_____1. There were 450 boy scouts from Zamboanga Sibugay participated in the tree planting activities during the 4th Regional Jamboree. 96% of them were given seedlings to plant. How many boy scouts were able to plant trees?

A. 432

B. 433

C. 434

D. 435

_____2. In the District GSP encampment, 56% of 150 participants registered before the schedule of the activity. How many participants registered ahead?

A. 82
B. 83
C. 84
D. 85

_____3. The grade 5 pupils were given 40 item long quiz in Math. 75% of the test items is the passing score. What is the passing score?

A. 30
B. 32
C. 34
D. 36

_____4. Allan and Ellen are twins. They used to save 30% of their weekly allowance given by their parents amounting to P750.00. How much did they save in a week?

A. P 220.00 B. P 225.00 C. P 230.00 D. P 235.00

**For items number 5-10. Read and analyze the problem below.**

*Alden invited 300 scouts to his birthday party. Only 85% of the scouts show up. How many scouts came to the party?*

_____5. What is asked in the problem?

A. The number of scouts came to the party.
B. The number of invited scouts to the party.
C. The number of scouts show up in the party
D. The percentage of scouts who came to the party.

_____6. What are the given facts?

A. 385 scout
B. 85% of the scouts
C. 300 invited scouts
D. 300 invited scouts and 85% of the scouts

_____7. What operation to be used?

A. Addition
B. Subtraction
C. Multiplication
D. Division

_____8. What is the number sentence?

A. 300 + 85% = n
B. 300 x 85% = n
C. 300 - 85% = n
D. 300 ÷ 85% = n

_____9. What is the correct answer?

A. 225 scouts came to the party
B. 235 scouts came to the party
C. 245 scouts came to the party
D. 255 scouts came to the party

_____10. Which of the following is the formula used in the problem?

A. P= B + R
B. P= B – R
C. P= B x R
D. P= B ÷ R

# What's In

## ACTIVITY 1. "MAKE ME COMPLETE"

**Directions**: Fill in the table below by writing the base, rate and percentage of the given numbers.

| Given | Base | Rate | Percentage |
|---|---|---|---|
| 1. 25% of 200 is 50 | 200 | 25% | 50 |
| 2. 320 x 32%=102.40 | | | |
| 3. 100 x 48%=48 | | | |
| 4. 85% of 190 is 161.50 | | | |
| 5. 420 x 50%=210 | | | |
| 6.2% of 80 is 1.6 | | | |
| 7.18% of 23 is 4.14 | | | |
| 8. 5% of 800 is 40 | | | |
| 9. 10% of 60 is 6 | | | |
| 10 50% of 100 is 50 | | | |

# What's New

## ACTIVITY 1.

**Directions:** Read the situation below. Answer the questions that follows.

Angelo, a son of an overseas worker, spends time studying his lessons and helping his mother do the household chores. As a result, he gets 98% out of 50 item test in Math. What is his score?

Questions:

1. Who is the son of the overseas worker? _____
2. What describes Angelo as a pupil? _____

3. What does he do to help his mother? _____
4. If you were Angel, will you be doing the same? Why? _____
5. what does the problem ask for?
   ( Angelo's score )
6. What facts are given?
   ( 50 item test and 98% )
7. What are needed data?
   Base = 50 items
   Rate = 98%
   Percentage = _____
8. How will you fin the answer to the problem?
   ( Use the formula: P = B X R )
9. What equation best suits the problem?
   ( 98% X 50 = N )
10. What proportion represents the problem?

$$\frac{98}{100} = \frac{N}{50}$$

100 X N = 98 X 50
100 X N = 4 900

$$N = \frac{4900}{100}$$

N = 49

Therefore, Angelo got 49 out of 50 item test.

# What is it

***A.*** Finding and Solving Percentage of a Given Problem

Here are the steps in analyzing and solving word problems:

1. Know what is asked.
2. Identify what are the given facts.
3. Analyze what operation to be used.
4. Write the number sentence.
5. Solve to get the answer following the steps:

**Step 1**: Identify the rate and the base in the given problem
**Step 2**: Transform the problem in an equation form
**Step 3**: Use the formula in finding the percent. Change the rate to a decimal then multiply the base.
**Step 4**: Follow the steps use in multiplication.
Put the decimal point on its corresponding place.

## Example:

During the District BSP Camporal 84% of 1,000 Boy Scouts registered in the council in order to participate the said activity. How many Boy Scouts were registered during the District Camporal?

1. What is asked?

   ***The number of scouts registered during the District Camporal.***

2. What are the given facts?

   - ***84 % and 1,000 Boy Scouts***

3. What operation to be used?

   - ***Multiplication***

4. What is the number sentence?

   - ***1,000 x 84% = n***

5. What is the answer? Solve:

**Step 1**: Identify the rate and the base in the given problem

**Rate= 84%**

**Base= 1,000**

**Step 2**: Transform the problem in equation form

**1,000 x 84%**

**Step 3**: Use the formula in finding the percentage.

Change the rate to a decimal then multiply the base.

***P= B x R***

***P= 1,000 x 0 .84***

**Step 4**: Follow the steps use in multiplication.

Put the decimal point on its corresponding place.

**1000**
**X 0 .84**
**4000**
**8000**
**840.00**

Therefore, there are **840** Boy Scouts registered during the District Camporal.

# What's More

## ACTIVITY 2: "It's Your Turn"

**Directions:** Solve the word problem by writing your answer on the space provided.

In every class there should be 20% registered scouts as campaigned to maintain the BSP and GSP membership of the council. The Grade 5 class is having 47 pupils. How many pupils are needed to be registered?

1. What is asked?

   ❖ _____

2. What are the given facts?

   ❖ _____

3. What operation to be used?

   ❖ _____

4. What is the number sentence?

   ❖ _____

***5. Solve:***

**Step 1**: Identify the rate and the base in the given problem

**Rate=** _____

**Base=** _____

**Step 2**: Transform the problem in equation form

_____

**Step 3**: Use the formula in finding the percentage.
Change the rate to a decimal then multiply the base.

***P*=** _____

***P*=** _____

**Step 4**: Follow the steps used in multiplication.
Put the decimal point on its corresponding place.

_____

_____

_____

_____

_____

_____

Therefore, there are _____.

# What I Have Learned

## Activity 3. "Match Me If You Can"

**A. Directions:** Match Column A with Column B. Write the letter on the space before the number.

| Column A | Column B |
|---|---|
| ____1. 209 | A. 90% of 120 BSP tickets were sold. How many tickets were sold? |
| ____2. 300 | B. Teacher Lorna saves 30% of her P22,000 monthly salary. How much does she saved monthly? |
| ____3. P6,600 | C. 95% of 220 Girl Scouts join the Clean-up drive. How many Girl Scouts joined the Clean-up drive? |
| ____4. P341.25 | D. 25% of 400 pupils took online classes. How many pupils took online classes? |
| ____5. 100 | E. 75% of 400 pupils took modular learning. How many pupils took modular learning? |
| | F. The store offers 65% discount for the P525.00 bag price. How much is the discount of the bag? |

**B. Directions:** Solve the word problem using your own way or style applying some guidelines learned in the previous activities.

| |
|---|
| Ana plans to participate the Regional GSP encampment. She saves 65% of her monthly allowance amounting to P1,500.00. How much does she saved in 4 month? |

# What I Can Do

**ACTIVITY 4.**

**1. Directions**: Match column A with column B.

| Column A | Column B |
|---|---|
| 1.What is 30% of 60? | A. 250 |
| 2.16% of 150 is _____. | B. 130 |
| 3.23% of 1 200 is ____. | C. 24 |
| 4.What is 87% 0f 420? | D. 365.40 |
| 5. 65% of 200 is _____. | E. 18 |
| | F. 276 |

**2. Directions**: Analyze the problems. Write your answer on the space provided for.

_____ 1. What is 255 % of 4?

_____ 2. 200% of 3 is what number?

_____ 3. 60% of 40 is _____.

_____ 4. What number is 1% of 1000?

_____ 5. 75% of 12 is _____.

# Assessment

**Directions:** Write the letter of the correct answer on the space provided before the number.

_____1. Mrs. Samson registered in the council 55% out of 40 pupils in her class. How many pupils were registered in the council?

A. 19
B. B.20
C. C. 21
D. D.22

_____2. Alvin wants to apply one of the scout laws which is being thrifty, He saves 10% of his P120.00 allowance in a week. How much does he saves in a week?

A. P10.00
B. P12.00
C. P14.00
D. D. P16.00

_____3. Antonio family saved 25% from their daily budget of P150.00 because of their vegetable garden in the backyard. How much did they save in a day?

A. P 27.50
B. P 37.50
C. P 47.50
D. P 57.50

_____4. Lindsay bought a dress cost P550.00 with 20% discount. How much is the discount for the dress?

A. P100.00
B. P105.00
C. P110.00
D. P115.00

**For item number 5-10. Please read and analyze the problem below.**

| |
|---|
| The school oriented 45% of 286 parents regarding the new guidelines on the new normal. How many parents were oriented? |

_____5. What is asked in the problem?

A. The number of parents oriented.
B. The number of schools oriented.
C. The number of parents in school.
D. The number of the new guidelines.

_____6. What are the given facts?

A. 331 scouts
B. 45% of the scouts
C. 286 parents
D. 45% and 286 parents

_____7. What operation to be used?

A. Addition B. Subtraction C. Multiplication D. Division

_____8. What is the number sentence?

A. 300 x 85% = N
B. 300 + 85% = N
C. 300 - 85% = N
D. 300 ÷ 85% = N

_____9. What is the correct answer?

A. 245 scouts came to the party
B. 255 scouts came to the party
C. 265 scouts came to the party
D. 275 scouts came to the party

_____10. Which of the following is the formula used in the problem?

A. P= B + R B. P= B – R C. P= B x R D. P= B ÷ R

## Additional Activities:

**Directions:** Write a situation that you have experience involving percentage.

Example : I bought a shirt from LEE and RRJ store with 50% discount. The price of the shirt is P400.00. I paid P200.00 only. Therefore 50% of P400.00 is P200.00.

_____

_____

_____

_____

_____

# References

Lumbre, Angelina P., Alvin C. Ursua, Donnel P. Placer, and Jaime R. Burgos. *21st Century Mathletes Textbook for Grade 5*. edited Mercurio T. Elenzano, EdD, Chin Uy, Ph.D..Quezon City.Vibal Group, Inc..2016

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