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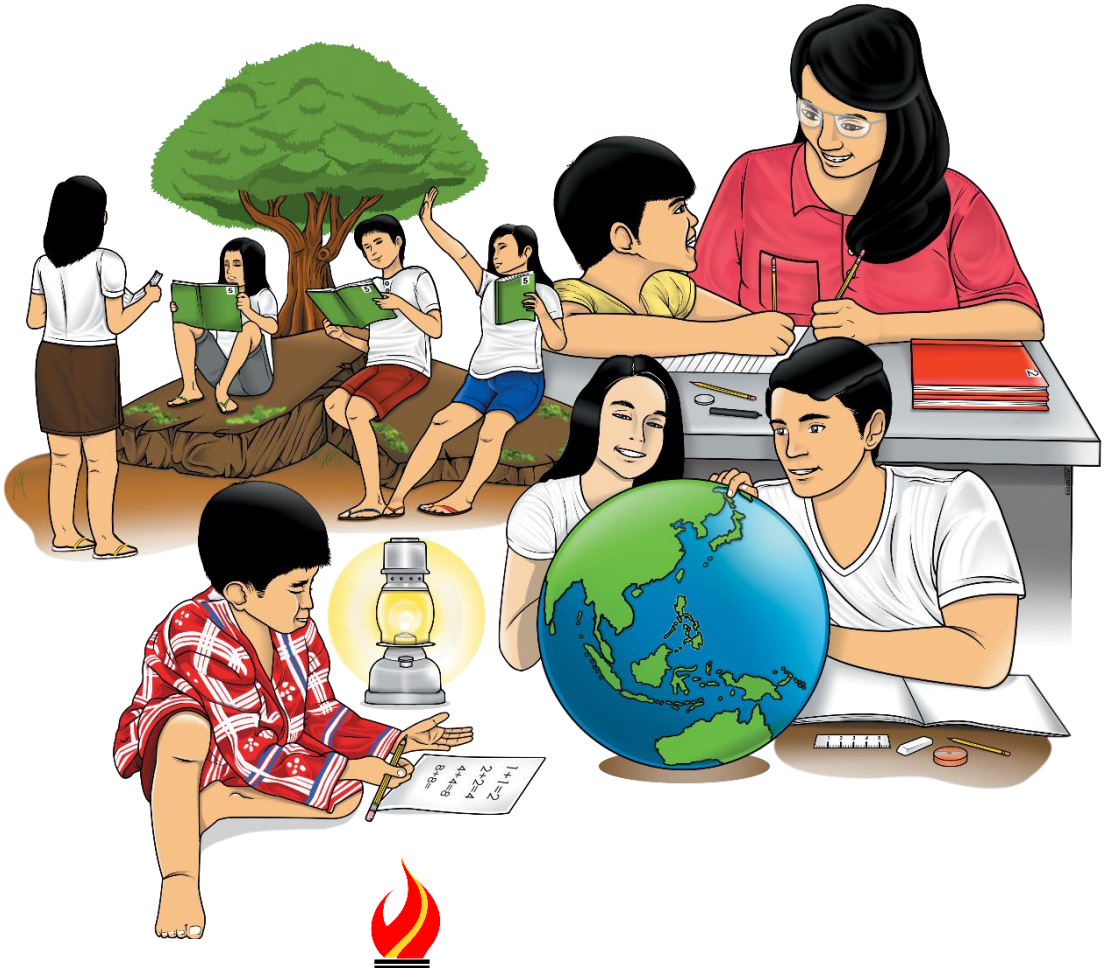
Mathematics

Quarter 3 – Module 2:
Kinds of Angles



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Development Team of the Module

Writer: Narlyn J. Dechavez
Editors: Loyd H. Botor, Elena D. Hubilla
Reviewers: Loyd H. Botor, Elena D. Hubilla
Illustrator: Jason C. Borabo
Layout Artist: Cherry Lou O. Calison
Management Team: Gilbert T. Sadsad, Francisco B. Bulalacao Jr., Grace U. Rabelas, Ma Leilani R. Lorico, Monserat D. Guemo, Florena M. Deuna

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Department of Education – Region V

Office Address : Regional Center Site, Rawis, Legazpi City, 4500
Telefax : 0917-178-1288
E-mail Address : region5@deped.gov.ph

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Mathematics

Quarter 3 – Module 2:
Kinds of Angles

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Introductory Message

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-by-step as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teacher are also provided to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. And read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.

What I Need to Know

Angles are formed when two lines intersect.

In this lesson, you will learn about the different kinds of angles based on their measures. The first activity will allow you to explore and discover the different kinds of angles which the hour and minute hands of a clock form. The succeeding activities, in turn, will help you describe and illustrate the different kinds of angles.

At the end of this module, you should be able to:

- Identify the kinds of angles (right, acute and obtuse).
- Describe the different kinds of angles.
- Illustrate the different kinds of angles.

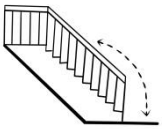
REMINDER: *In all of the activities, please write your answers on a separate sheet of paper.*

What I Know

A. Match the descriptions listed in the second column with the angles in the first column. Write the letter of the correct answer on your answer sheet.

A	**B**
___ 1. Acute angle	a. Measures between 90^0 and 180^0
___ 2. Right Angle	b. Measures between 0^0 and 90^0
___ 3. Obtuse Angle	c. Measures exactly 90°
	d. Measures exactly 180°

B. Match the different kinds of angles listed in Column B with the angles shown or represented by the pictures in Column A. Write the letter of the correct answer on the blank provided in your answer sheet.

Column A	**Column B**
_____1. 	A. Right Angle
_____ 2. 	B. Obtuse Angle
_____ 3. 	C. Acute Angle
_____ 4. 	

C. Draw an example of each kind of angle.

1. acute angle
2. right angle
3. obtuse angle

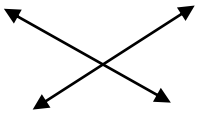
If you got 8 or higher, that is VERY GOOD. The lesson in this module will be easy for you. If you got lower than 8, you have to study carefully the lesson and the exercises given.

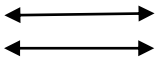
Lesson 1 Kinds of Angles

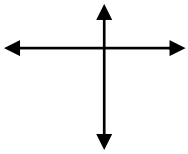
What's In

Activity 1

Identify each as parallel, intersecting or perpendicular lines.

1.  _____

2.  _____

3.  _____

Activity 2

Draw examples of parallel, perpendicular and intersecting lines.

1. Parallel lines
2. Intersecting lines
3. Perpendicular lines

What's New

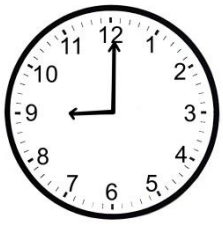
To maintain their healthy bodies, Lola Remy, Lola Inday and Lola Nancy drink their vitamins everyday. Lola Remy drinks her vitamins at exactly 9:00 in the morning, Lola Inday at 2:00 and Lola Nancy at 5:00 in the afternoon.

a. Who drink their vitamins everyday? Why do they drink their vitamins everyday?
b. At what time do they drink their vitamins?
c. Draw the positions of the hour and minute hands of the clock at those times given below.

1. 9:00
2. 2:00
3. 5:00

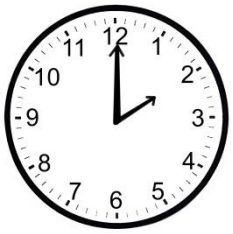
What is It

Let's take a look at the clocks showing the respective times Lola Remy, Lola Inday and Lola Nancy take their vitamins.



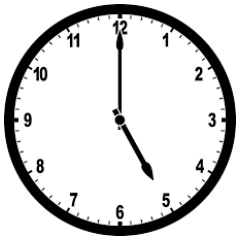
Lola Remy

- At 9:00, the minute and hour hands of the clock form an angle which measures 90˚. This angle, like all angles which measure 90˚, is called a **right angle.**



Lola Inday

- At 2:00, the minute and hour hands of the clock form an angle which measures 60˚. This is between 0˚ and 90˚ The angle here, like all other angles which measure between 0˚ and 90˚, is called an **acute angle**.

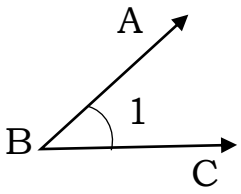


Lola Nancy

- At 5:00, the minute and hour hands of the clock form an angle which measures 150˚. This is between 90˚ and 180˚ The angle here, like all other angles which measure between 90˚ and 180˚, is called an **obtuse angle**.

An angle is formed by two rays with a common endpoint.

In the figure below, Rays BA and BC have B as their common endpoint and they form angle ABC. Using symbols, we write $\angle$ABC, which is read as "angle ABC". The angle may also be called $\angle$ CBA.

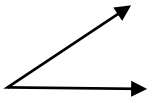


The angle above may also be named as $\angle$1, or simply $\angle$ B.

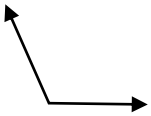
What's More

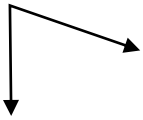
Activity 1

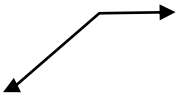
Identify each angle as acute, right or obtuse.

1.  _____

2.  _____

3.  _____

4.  _____

5.  _____

Activity 2

Draw the required angle.

1. acute angle NOP
2. right angle PQR
3. obtuse angle HIJ
4. right angle ABC
5. acute angle JKL

What I Have Learned

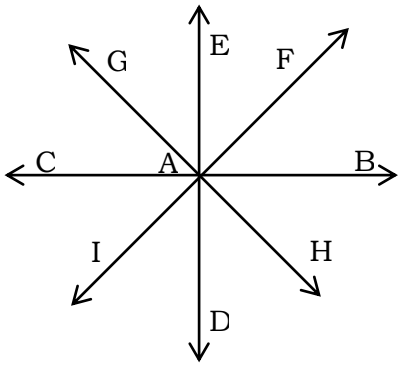
Remember:

A **right angle** measures exactly 90˚.
An **acute angle** measures between 0^0 and 90^0.
An **obtuse angle** measures between 90^0 and 180^0.

What I Can Do

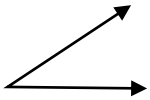
Direction: What kind of angles are the following?

1. ∠EAB _____
2. ∠ GAC _____
3. ∠CAH _____
4. ∠DAI _____
5. ∠GAB _____

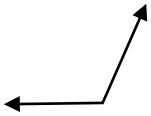


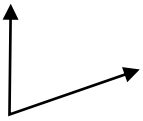
Assessment

I. Identify each of the following by writing acute, right or obtuse angle in the blank.

1.  _____

2.  _____

3.  _____

4.  _____

5.  _____

6.  _____

7.  _____

II. Describe the following angles.

1. acute angle
2. obtuse angle
3. right angle

Additional Activities

What kind of angles are the following?

1. 48˚	_____	6. 89˚	_____
2. 125˚	_____	7. 96˚	_____
3. 90˚	_____	8. 167˚	_____
4. 105˚	_____	9. 179˚	_____
5. 64˚	_____	10. 77˚	_____

Please check your answers with the ANSWER KEY on page 10.

Got a score of 8-10? CONGRATULATIONS! Job well done. See you in the next module. If below 8, you may have to go over the lessons and the exercises again.

Answer Key

Additional Activities

1. Acute Angle
2. Obtuse Angle
3. Right Angle
4. Obtuse Angle
5. Acute Angle
6. Acute Angle
7. Obtuse Angle
8. Obtuse Angle
9. Obtuse Angle
10. Acute Angle

What I Can Do

1. Right Angle
2. Acute Angle
3. Obtuse Angle
4. Acute Angle
5. Obtuse Angle

Assessment

I.
1. acute angle
2. right angle
3. obtuse angle
4. acute angle
5. right angle
6. acute angle
7. right angle

II.
1. Acute angle measures between 0^0 and 90^0.
2. Obtuse angle measures between 90^0 and 180^0.
3. Right angle measures exactly 90^0.

What's More

Activity 1

1. Acute angle
2. Right angle
3. Obtuse angle
4. Acute angle
5. Obtuse angle

Activity 2

What's New

A. Lola Remy, Lola Indøy and Lola Nancy. To maintain their healthy body.

B. 9:00 in the morning, 2:00 and 5:00 in the afternoon.

C. 9:00, 2:00, and 5:00

What's In

Activity 1

1. Intersecting Lines
2. Parallel Lines
3. Perpendicular Lines
4.

Activity 2

1. 2.
3.

What I Know

A. 1. b 2. c 3. a

B. 1. b 2. c 3. b 4. a

C. 1. 2. 3.

References

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Mathisfun. "Angles". https://www.mathsisfun.com/angles.html

For inquiries or feedback, please write or call:

Department of Education - Bureau of Learning Resources (DepEd-BLR)

Ground Floor, Bonifacio Bldg., DepEd Complex
Meralco Avenue, Pasig City, Philippines 1600

Telefax: (632) 8634-1072; 8634-1054; 8631-4985

Email Address: blr.lrqad@deped.gov.ph * blr.lrpd@deped.gov.ph