4

Mathematics 4
Microlearning Module

QUARTER 1 – Module 4

Classifying Triangles and Quadrilaterals According to Sides and Angles

MLM
Microlearning Module

REGION XII - DIVISION OF SULTAN KUDARAT

Mathematics 4
Microlearning Module (MLM)
Quarter 1 – Module 4: Classifying Triangles and Quadrilaterals According to Sides
           and Angles.
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Name: _____ Grade & Sec: _____ Score: _____
Subject: ____Mathematics_____ Quarter: ____1____ MLM No.___4_____
Teacher: _____
Competency: Classify triangles and quadrilaterals according to sides and
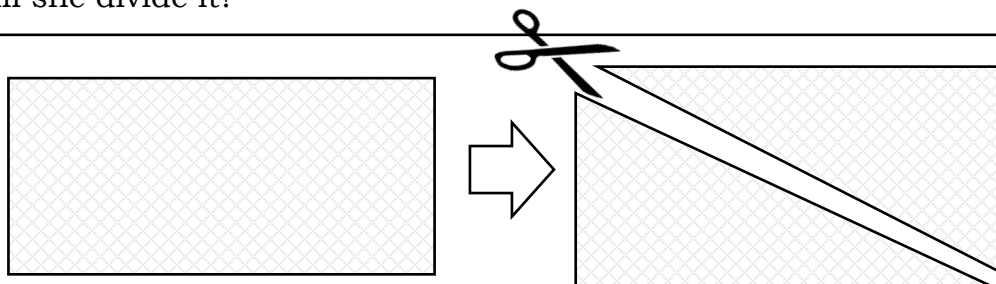angles

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A. Look Back!

Answer Me!
"What Am I?"
a. I am the common endpoint of an angle. _____
b. I am an angle whose measure is 90°_____
c. I am an angle whose measure is less than 90°. _____
d. I am an angle whose measure is more than 90° but less than 180°. _____

B. What's New?

Read and answer the question that follows:

> Mrs. Santos bought a cartolina for her Math class. She needs two triangles of the same size without wasting any part of the cartolina. How will she divide it?
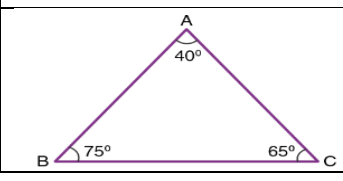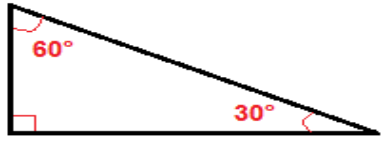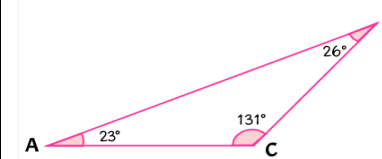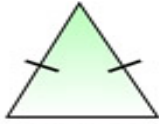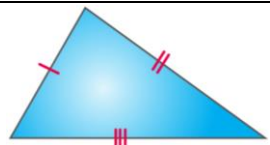
What shapes are formed?

C. What Is It?

Triangles are three-sided, closed figures, and they can be classified based on the lengths of their sides and the measures of their angles.

Triangles According to its Angles

Name	Figure	Definition
Acute Triangle	A 40° B 75° 65° C	All angles are less than 90˚.
Right Triangle	60° 30°	It has one right angle that measures 90˚.
Obtuse Triangle	B 26° 131° A 23° C	One angle measures more than 90˚.

Triangles According to its Sides
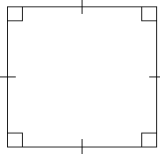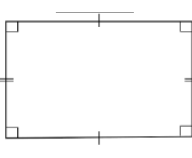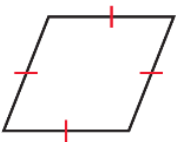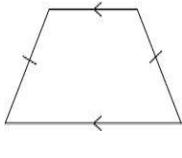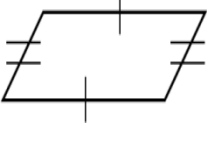
Name	Figure	Definition
Equilateral Triangle		All sides are equal.
Isosceles Triangle		Two sides are equal.
Scalene Triangle		Has no equal sides.

Quadrilaterals are four-sided, closed figures, and they can also be classified based on the lengths of their sides and the measures of their angles.

Classifying Quadrilaterals:
1. **Square-** A quadrilateral with all four sides of equal length and all four angles right angles (90 degrees).
2. **Rectangle-** A quadrilateral with opposite sides of equal length and all four angles right angles.
3. **Rhombus-** A quadrilateral with all four sides of equal length.
4. **Trapezoid-** A quadrilateral with at least one pair of parallel sides.
5. **Parallelogram**- A quadrilateral with opposite sides parallel and opposite angles equal.

Types of Quadrilaterals

Quadrilaterals	Square	Rectangle	Rhombus	Trapezoid	Parallelogram
One pair of opposite sides is parallel				✓	
Two pairs of opposite sides are parallel	✓	✓	✓		✓
Two pairs of opposite sides are congruent	✓	✓	✓		✓
All sides are congruent	✓		✓		
All angle measures 90 degrees	✓	✓			

D. Let's Try!

A. Identify the following triangles according to angles.

1.

2.

3.

_____   _____   _____
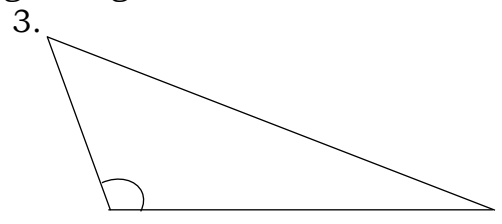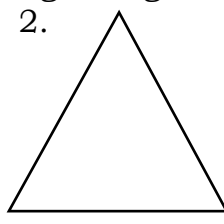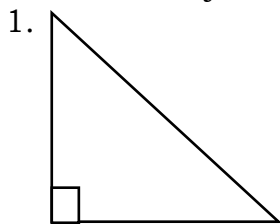
B. Identify the following triangles according to their sides.

1.

2.

3.

_____   _____   _____
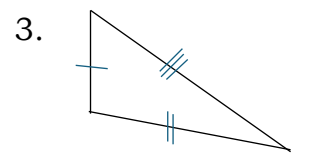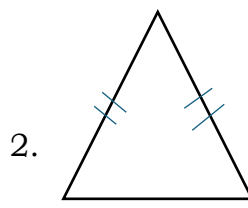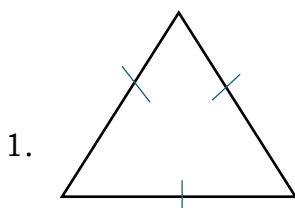
C. Answer the following questions by putting a check mark (✓) in the blank if your answer is Yes and **X** if it is No.

_____1. Is a parallelogram a rectangle?
_____2. Is a trapezoid a parallelogram?
_____3. Is a square a rectangle?
_____4. Is a rhombus a square?
_____5. Is a rectangle a parallelogram?

# D. Let's Evaluate

Directions: Read each statement carefully. Write **TRUE** if the statement is correct, and **FALSE** if it is incorrect.

_____1. An equilateral triangle has all sides of equal length.
_____2. A scalene triangle has two sides of equal length.
_____3. An obtuse triangle has one angle greater than 90 degrees.
_____4. A square is a type of parallelogram.
_____5. A rectangle has four right angles.
_____6. A rhombus has all sides of equal length.
_____7. A trapezoid has no parallel sides.
_____8. An isosceles triangle has at least two sides of equal length.
_____9. A regular quadrilateral has all angles equal in measure.
_____10. A square is a quadrilateral with all four sides of equal length and all four angles right angles.

Challenge!

How many triangles and quadrilaterals are there in the figure below?
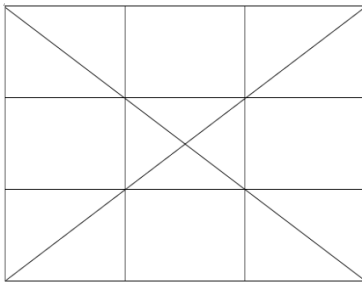
Number of triangles:

_____

Number of quadrilaterals:

_____

E. References

Chingcuangco, O. G. *Soaring High with Mathematics 4 Textbook.*2019.
    Quezon City: Saint Mathew's Publishing

Tabilang, A. R., Ian Jay B. Arce, & R.V. Pascua, *Mathematics 4*
    *Learner's Materials.*2015. Pasig City: Department of Education

REGION XII - DIVISION OF SULTAN KUDARAT

MATH Grade4_Q1_LC4

Answer Key!

E. Let's Evaluate

1. TRUE
2. FALSE
3. TRUE
4. TRUE
5. TRUE
6. TRUE
7. FALSE
8. TRUE
9. TRUE
10. TRUE

Challenge!

Number of triangles:

16 (smallest) + 8 (medium) + 4 (large) = **28 triangles

Number of quadrilaterals:
Adding all the counts together:
- 1x1: 12
- 2x1 and 1x2: 8 + 9 = 17
- 2x2: 6
- 3x1 and 1x3: 4 + 3 = 7
- 3x2 and 2x3: 3 + 2 = 5
- 3x3: 1

Total quadrilaterals = 12 + 17 + 6 + 7 + 5 + 1 = 48 quadrilaterals

A. Look Back!

a. vertex
b. right angle
c. acute angle
d. obtuse angle

D. Let's try!

A. 1. right triangle
2. acute triangle
3. obtuse triangle

B. 1. equilateral triangle
2. isosceles triangle
3. scalene triangle

C. 1. **X**
2. **X** -A trapezoid is not a parallelogram. A trapezoid only has one pair of parallel sides, while a parallelogram has two pairs of parallel sides.
3. ✓
4. **X**
5. ✓