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## Quarter 3 - Module 4: Can You Relate Me?

## JUNE

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## What I Need to Know

This module contains a series of activities that will help you learn and understand how triangles and quadrilaterals are related to each other.

It contains two lessons:

- Lesson 1 - Relating Triangles to Quadrilaterals
- Lesson 2 - Relating One Quadrilateral to Another Quadrilateral

After going through this module, you are expected to:

1. Relate triangles to quadrilaterals. (M4GE-IIId-18)
2. Relate one quadrilateral to another quadrilateral. (M4GE-IIId-18.2)


## What I Know

Directions: Choose the letter of the correct answer. Write the chosen letter on the space provided for you.
$\qquad$ 1. How many triangles of the shape and size of the shaded triangle will fit the rectangle?

A. four
C. six
B. five
D. seven
$\qquad$ 2. What polygon is formed if you divide this figure into three equal parts?

A. squares
C. rhombuses
B. triangles
D. kites
$\qquad$ 3. What quadrilateral is formed if these five triangles are put together?
A.


B.


C

D.

$\qquad$ 4. How many triangles and quadrilaterals are in the figure?

A. 14 triangles and 4 quadrilaterals
B. 15 triangles and 4 quadrilaterals
C. 16 triangles and 2 quadrilaterals
D. 18 triangles and 3 quadrilaterals
5. What is formed if you draw a diagonal line in this square?

A. kites
B. square
C. triangles
D. rhombuses
6. How are these figures related?

A. Both have 2 pairs of parallel sides and 4 vertices
B. Both have 1 pair of parallel side and 4 vertices.
C. Both have one pair of parallel side.
D. Both have 4 right angles.
7. How is the trapezoid related to the isosceles trapezoid?

A. Both have 4 sides and 4 right angles.
C. All angles in both figures are equal.
B. Both have one pair of parallel sides.
D. Both have 2 pairs of parallel sides.
8. The following statements are the relationship between the two figures below EXCEPT one.

A. They have 2 pairs of parallel sides.
C. They have 4 equal sides.
B. They have 4 right angles.
D. They are quadrilaterals.
$\qquad$ 9. The following statements are the relationship between the two figures EXCEPT one.

A. They have 4 sides and 4 right angles.
C. They are quadrilaterals.
B. They have 4 corners/vertices.
D. They are parallelogram.
10. Which two figures are related with these characteristics?
It has 4 right angles. It has 4 vertices. It is a parallelogram.
A.
 and

C. $\square$ and
B.

and

D.

and
$\square$


## What's In

## Activity 1: Match Me

Directions: Match the quadrilaterals in column A with its description in column B. Write the letter of the correct answer before the number.

## Column A

Column B
$\qquad$ 1. Rectangle
$\qquad$ 2. Parallelogram
3. Square
4. Rhombus
$\qquad$ 5. Trapezoid
A. It has 4 sides but no right angles.
B. It has 4 equal sides and 4 right angles
C. It has 2 pairs of parallel lines and 4
right angles.
D. It has 2 pairs of parallel lines.
E. It has exactly one pair of parallel sides.

## What's New

Everyone is busy preparing for the school's Foundation Day celebration.

Teacher Jane is assigned to make banderitas out of square colored papers. She is planning to finish the work in just two hours.

Questions:

1. What did Teacher Jane make for the school's Foundation Day celebration?
2. What material did she use in making banderitas?
3. What did she do with the square colored papers to make banderitas?
4. If you were one of the pupils of Teacher Jane, how will you show your kindness to her?
5.How would others feel if we helped them?

## What is it

Let us study how triangle is related to quadrilateral.
A triangle is a three-sided polygon. It has 3 vertices and three angles. It can be made from some quadrilaterals without any parts wasted.

A quadrilateral is a polygon with four sides and four angles. It can be divided into triangles.

Study the figures below:

Teacher Jane traced outlines of triangles on the square colored papers.

|  |  |
| :---: | :---: |
| A square colored paper |  |

Then she cut them to produce triangles for the banderitas.


We can also make triangular shapes from rectangle and trapezoid.


Let us also study how one quadrilateral is related to another quadrilateral.
The square, rhombus, rectangle, trapezoid, isosceles trapezoid, and kite are quadrilaterals. They all have four sides and four vertices. They are related to each other in some characteristics.

Study the figures below:


The side of the table has the shape of rectangle.

A rectangle has 2 pairs of parallel sides.
It has 4 corners /vertices.
It has 4 right angles.
Rectangle


Square
A square has 4 equal sides.
It has 4 corners /vertices.
It has 4 right angles.
$>$ The rectangle and the square are related because both have four corners and 4 right angles.

Let us study another example:

square


A rhombus has 4 equal sides.

- It has 4 corners/vertices.

It has no right angles.
rhombus

## > The square and rhombus are related because both have 4 equal sides and 4 corners/vertices.

## What's More

Let us try to answer this activity about relating triangles to quadrilaterals.

## Activity 2: Draw Me

Directions: Draw broken lines to form two triangles in each figure.
1.

4.

2.

5.

3.


## Activity 3: Describe Me

I. Directions: Describe the figures by filling the blanks with the correct answer.

This is a $\qquad$ It has $\qquad$ pairs of opposite parallel sides.
It has $\qquad$ corners/vertices.
It has $\qquad$ right angles.


This is a $\qquad$ .
It has $\qquad$ pairs of opposite parallel sides.
It has $\qquad$ corners/vertices.
It has no right angles.
II. Directions: Use the descriptions of the figures above to show their relationship. Write your answer below.

## What I Have Learned

## Activity 4: Fill Me

A. Directions: Fill in the blanks to complete the statement.

1. A polygon with three sides, 3 vertices and three angles is called $\qquad$ . It can be made from some $\qquad$ .
2. A polygon with four sides and four angles is called $\qquad$ . It can be divided into $\qquad$ .
3. The square, rhombus, rectangle, trapezoid, isosceles trapezoid, and kite are called $\qquad$ .
4. Quadrilaterals have four sides and four vertices. They are related to each other in some of their $\qquad$ .

## What I Can Do

## Activity 5: Trace Me

Directions: Trace and cut the triangles below. Put together the triangle cutouts to form quadrilaterals. Write the name of the quadrilateral that is being formed.

Example:

rhombus

| TRIANGLES | QUADRILATERAL FORMED | NAME OF <br> QUADRILATERAL |
| :--- | :--- | :--- |
|  |  |  |

## Activity 6: Describe and Relate Me

A. Directions: Look at the figures below and describe each of them.

$\qquad$
$\qquad$

$\qquad$
$\qquad$
B. Directions: Use the descriptions that you made to show the relationships of the figures above.
$\qquad$
$\qquad$
$\qquad$

## Assessment

Directions: Read each item carefully. Write the letter of your answer on the space before the number.
$\qquad$ 1. What quadrilateral is formed if these four triangles are put together?

A.

B.

C

D.

2. How many triangles and quadrilaterals are in the figure?

A. 8 triangles and 1 quadrilateral
B. 10 triangles and 2 quadrilaterals
C. 22 triangles and 6 quadrilaterals
D. 18 triangles and 3 quadrilaterals
3. How many triangles of the shape and size of the shaded triangle will fit the trapezoid?

A. four
B. five
C. six
D. seven
4. What quadrilateral is formed if these 2 triangles are put together?

A. trapezoid
B. kite
C. rectangle
D. square
5. What is formed if you draw a diagonal line in this square?
A. kites
B. squares
C. triangles
D. rhombuses

6. How is the trapezoid related to the isosceles trapezoid?

A. Both have 4 sides and 4 right angles.
B. All angles in both figures are equal.
C. Both have one pair of parallel sides.
D. Both have 2 pairs of parallel sides.
7. The following statements are the relationship between the two figures below EXCEPT one.

A. They have 2 pairs of parallel sides.
C. They have 4 equal sides.
B. They have 4 right angles.
D. They are quadrilaterals.
8. The following statements are the relationship between the two figures

EXCEPT one.

A. They have 4 right angles.
B. They have 4 equal sides.
C. They are quadrilaterals.
D. They are parallelogram.
9. Which two figures are related with these characteristics?

It has 4 right angles. It has 4 vertices. It is a parallelogram.
A.
 and

C.
 and

B.

and

D
 and

10. The following statements are the relationship between the two figures

EXCEPT one.

A. They have 4 sides and 4 angles.
C. They have 4 equal sides.
B. They have 4 corners/vertices
D. They are quadrilaterals.

## Additional Activities

## Activity 7: Count Me

Directions: Study the figure and answer the question below.


How many quadrilaterals and triangles are in the figure?
$\qquad$ Triangles $\qquad$ Quadrilaterals

## Activity 8: Find Me

Directions: Look for 2 objects in your home that look like a quadrilateral. Describe how they are related to each other. Write your answer below

## References

## A. Book

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## B. Web Links

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