



Mathematics 4 Microlearning Module

OUARTER 3 – Module 12

Identifying Symmetry with Respect to a Line





REGION XII - DIVISION OF SULTAN KUDARAT

Math 4 Microlearning Module (MLM) Quarter 3 – Module 12: Identifying symmetry with respect to a line First Edition, 2024

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MICROLEARNING MODULE

Name:		Grade & Sec:		Score:	
Subject: Teacher:	Mathematics	Quarter:	3	MLM No.	12

Competency: Identify symmetry with respect to a line

A. Look Back!

Directions: Answer the problem below.

Adrian went to the pet store and bought $\frac{3}{4}$ kg of dog food and $\frac{1}{8}$ kg of cat food. His neighbor borrowed $\frac{1}{4}$ kg of the pet food. How many kg of pet food were left?

- 1. What did Adrian buy?
- 2. How many kilograms of pet food did Adian buy from a pet store?
- 3. How many kg of pet food did his neighbor borrow?
- 4. How many kg were left?
- 5. How did you solve the problem?

B. What's New?

Study the pictures.



What do you see in the picture?

How are you going to characterize the two pictures? Are they the same? Which image demonstrates symmetry or equality on both sides? **Activity 1.**

Materials Needed:

- Sheet of paper
- Pencil
- Crayons or colored pencils
- Scissors

Instructions:

1. Fold a sheet of paper in half lengthwise to create a long,

rectangular

shape

- 2. On the folded edge, draw half of a symmetrical design, such as an animal or flower. Make sure the design touches the fold line.
- 3. Carefully cut out the design, following the fold line as the line of symmetry.
- 4. Unfold the paper to reveal the complete, symmetrical design.
- 5. Color in the design, using the same colors on each side of the fold line

to maintain the symmetry.

C. What Is It?

Symmetry

A shape or an object has symmetry if it can be divided into two identical pieces. In a symmetrical shape, one half is the mirror image of the other half. The imaginary axis or line along which the figure can be folded to obtain the symmetrical halves is called the line of symmetry.

The line of symmetry is a line that divides an object into two identical pieces. Here, we have a star, and we can fold it into two halves. When a figure is folded in half, along its line of symmetry, both halves match each other exactly. This line of symmetry is called the **axis of symmetry**.

Line of symm<u>etry</u>



Different Kinds of Line Symmetry

Vertical Line of Symmetry

A vertical line of symmetry is that line that runs down vertically and divides an image into two identical halves. For example, the following shape can be split into two identical halves by a standing straight line. In such a case, the line of symmetry is vertical.



Horizontal Line of Symmetry

The horizontal line of symmetry divides a shape into identical halves, when split horizontally, i.e., cut from right to left or vice-versa. For example, the following shape can be split into two halves when cut horizontally. In such a case, the line of symmetry is horizontal.

Horizontal line of symmetry



Diagonal Line of Symmetry

A diagonal line of symmetry divides a shape into identical halves when split across the diagonal corners. For example, we can split the following square shape across the corners to form two identical halves. In such a case, the line of symmetry is diagonal.



Diagonal Line of Symmetry

Remember: Objects or shapes may have multiple lines of symmetry or

no line of symmetry.



D. Let's try!

Activity 1

Directions: Can you find lines of symmetry in the following objects? Write "Yes" if the object has symmetry, and "No" if it does not. ______1. _____3.



Activity 2

Direction: Show the line of symmetry in each shape or picture.



E. Let's Evaluate

Activity 1

Direction: Write the line of symmetry in each shape.





Activity 2

Directions: For each letter of the alphabet, draw the lines of symmetry and write the number of lines of symmetry in the space below the letter. If there are no lines of symmetry, write '0' in the space below the letter.



Activity 3

Challenge!

State the number of lines of symmetry in each object or figure. Tick the correct answer.



F. References

"Symmetry." *Cuemath.* Accessed October 15, 2024. <u>https://www.cuemath.com/geometry/symmetry/</u>.

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Answer Key

Math Grade4 Q3 LC12

Look Back

- 1. dog and cat food
- 2. $\frac{7}{8}$ 3. $\frac{1}{4}$ 4. $\frac{5}{8}$

5. Subtract the borrowed pet food to the total pet food

Let's Try

Activity 1

- 1. Yes
- 2. Yes
- 3. No
- 4. Yes
- 5. No









E. Let's Evaluate



Activity 2



Activity 3



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