4

Mathematics 4

Microlearning Module

QUARTER 1 – Module 6

Finding the Perimeter of Quadrilaterals that are not Squares or Rectangles

Microlearning Module

REGION XII - DIVISION OF SULTAN KUDARAT

Mathematics 4
Microlearning Module (MLM)
Quarter 1 – Module 6: Finding the Perimeter of Quadrilaterals that are not Squares or Rectangles
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MICROLEARNING MODULE

Name: _____Grade & Sec: _____ Score: _____
Subject: Mathematics Quarter: 1 MLM No. 6
Teacher: _____
Competency: Find the perimeter of quadrilaterals that are not squares or rectangles

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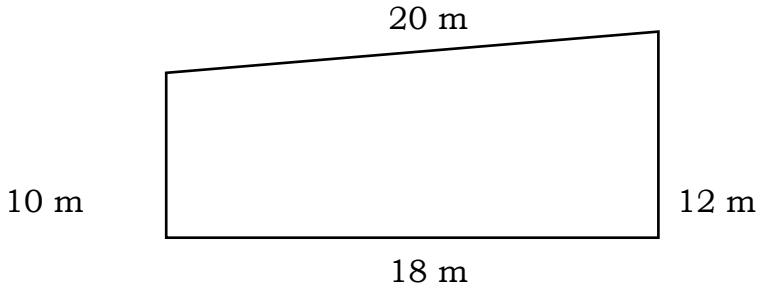
A. Look Back!

Write **TRUE** if the statement is correct and **FALSE** if it is not.

____1. A square is a type of rectangle.
____2. A rhombus has four equal sides and four right angles.
____3. A parallelogram has two pairs of parallel sides.
____4. A trapezoid has only one pair of parallel sides.
____5. A kite has two pairs of equal-length sides.
____6. A rectangle has four right angles and two pairs of equal-length sides.
____7. A square is a special case of a rhombus.
____8. A parallelogram is a type of trapezoid.
____9. A kite is a type of quadrilateral with no parallel sides.
____10. A rectangle is a special case of a parallelogram.

B. What's New?

A. Study the figure below, and answer the questions that follow:



1. What is the name of the shape? _____
2. What is the perimeter of the shape? _____
3. What are the steps you used to arrive at your answer? _____
4. What formula did you use? _____

C. What Is It?

Perimeter is the sum of the measures of a plane figure's sides or a *polygon*. It is also the measurement of the distance around a *polygon.*

Unlike squares and rectangles, where the perimeter can be calculated by simply adding the lengths of the four sides, quadrilaterals that are not squares or rectangles, such as trapezoids, rhombi, and kites, may have sides of different lengths.

The formula for finding the perimeter of a quadrilateral that is not a square or rectangle is:

Perimeter = a + b + c + d or P= S1 + S2 +S3 +S4 (4 sides), where a, b, c, and d represent the lengths of the four sides of the quadrilateral.

It's important to note that the order in which you add the sides does not matter, as long as you include all four sides in the calculation.

Example:

What is the perimeter of this trapezoid?

A trapezoid has four sides. To find the perimeter of a trapezoid, add up the lengths of all four sides. If the lengths of the sides are known, the formula for the perimeter of a trapezoid is P = a + b + c + d, where a, b, c, and d represent the lengths of the four sides.

P= a + b + c + d

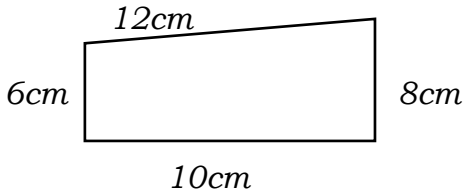
P= 15cm + 8cm + 20 cm + 12cm

P= 55cm

D. Let's Try!

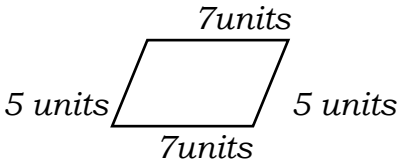
Let's practice finding the perimeter of a few quadrilaterals that are not squares or rectangles.

Example 1: A trapezoid has sides of 6 cm, 8 cm, 10 cm, and 12 cm.



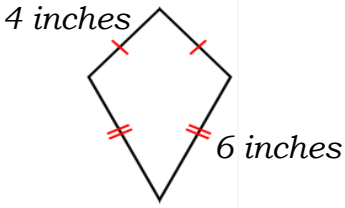
Perimeter = 6 cm + 8 cm + 10 cm + 12 cm = 36 cm

Example 2: A rhombus has side lengths of 5 units and 7 units.



Perimeter = 5 units + 5 units + 7 units + 7 units = 24 units

Example 3: A kite has side lengths of 4 inches, 6 inches, 4 inches, and 6 inches.



Perimeter = 4 in. + 6 in. + 4 in. + 6 in. = 20 in.

D. Let's Evaluate!

Instructions: Read each statement carefully, and choose the letter of the correct answer.

1. What is the formula to find the perimeter of a quadrilateral?
   a) Perimeter = 2 × (length + width)
   b) Perimeter = a + b + c + d
   c) Perimeter = 4 × side
   d) Perimeter = (length × width) / 2

2. Which of the following is not a type of quadrilateral?
   a) rhombus b) kite c) parallelogram d) circle

3. To find the perimeter of a trapezoid, you need to know the lengths of_____.
   a) all four sides
   b) the two parallel sides
   c) the two non-parallel sides
   d) the height and the two parallel sides

4. In a rhombus, all sides are equal in length. If the length of one side is 6 units, what is the perimeter?

a) 12 units b) 18 units c) 24 units d) 36 units

5. A kite has two pairs of equal sides. If the lengths of the sides are 5 units and 8 units, what is the perimeter?
   a) 13 units b) 26 units c) 32 units d) 40 units

6. A quadrilateral has side lengths of 4 units, 6 units, 8 units, and 10 units. What is the perimeter?
   a) 14 units b) 20 units c) 28 units d) 36 units

7. In a parallelogram, the lengths of the opposite sides are equal. If the lengths of the sides are 7 units and 9 units, what is the perimeter?
   a) 16 units b) 32 units c) 36 units d) 42 units

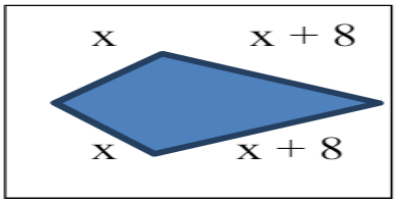
8. A quadrilateral has two adjacent sides of 6 units and 8 units, and the other two adjacent sides of 4 units and 10 units. What is the perimeter?
   a) 18 units b) 28 units c) 36 units d) 48 units

9. A trapezoid has parallel side lengths of 5 and 9 units and non-parallel side lengths of 6 and 8 units. What is the perimeter?
   a) 20 units b) 28 units c) 36 units d) 48 units

10. A kite has side lengths of 6 and 10 units. What is the perimeter?
    a) 16 units b) 32 units c) 40 units d) 60 units

Challenge!

1. The perimeter of a kite is 64 feet. The length of one of its sides is 8 feet more than the other side. What are the lengths of each side of the kite?



E. References

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https://peac.org.ph/wp-content/uploads/2019/10/MATHGR9Q3-Lesson-2.pdf

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Math Grade4_Q1_LC6

Answer Key

A. Look Back! 1. True 2. False 3. True 4. True 5. True 6. True 7. True 8. False 9. True 10. True	**D. Let's Evaluate** 1. b 2. d 3. a 4. c 5. b 6. c 7. b 8. b 9. b 10. b
B. What's New? 1. Trapezoid 2. 60 m 3. Answers may vary. 4. Answers may vary.	**Challenge!** Let ……. x = be the length of one side X+ 8 = the length of the other side Equation: x+x+x+8+x+8=64 4x+16=64 4x =64-16 4x =48 X = 12 Therefore, 2 sides measure 12 inches each and the other 2 sides measure 20 inches each. *Note: There may be different approaches to arrive at the answer*