Perimeter Worksheets

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Part 1: Building a Foundation

What is the perimeter of a square with each side measuring 5 cm?

Hint: Remember the formula for the perimeter of a square.

- ◯ A) 10 cm
- ◯ B) 15 cm
- ◯ C) 20 cm
- ◯ D) 25 cm

Which of the following shapes can have their perimeter calculated by summING the lengths of all sides? (Select all that apply)

Hint: Think about the shapes and how their perimeters are calculated.

- ☐ A) Rectangle
- ☐ B) Circle
- ☐ C) Triangle
- ☐ D) Square

Explain in your own words what the perimeter of a shape represents and why it is important in real-world applications.

Hint: Consider the definition and practical uses of perimeter.

List the formulas for calculating the perimeter of the following shapes: Rectangle, Triangle.

Hint: Recall the formulas for each shape.

1. Rectangle

2. Triangle

Part 2: Understanding and Interpretation

If a rectangle has a length of 8 meters and a width of 3 meters, what is its perimeter?

Hint: Use the perimeter formula for a rectangle.

- ◯ A) 11 meters
- ◯ B) 16 meters
- ◯ C) 22 meters
- ◯ D) 24 meters

Which statements are true about perimeter? (Select all that apply)

Hint: Consider the properties and definitions of perimeter.

- ☐ A) It is always measured in square units.
- ☐ B) It is the total length around a shape.
- ☐ C) It can be used to determine the amount of material needed to fence a garden.
- ☐ D) It is the same as the area of a shape.

Describe how you would find the perimeter of an irregular polygon. What steps would you take?

Hint: Think about measuring and adding the lengths of the sides.

Part 3: Application and Analysis

A triangular park has sides measuring 50 meters, 70 meters, and 80 meters. What is the perimeter of the park?

Hint: Add the lengths of all three sides.

- ◯ A) 150 meters
- ◯ B) 180 meters
- ◯ C) 200 meters
- ◯ D) 210 meters

A farmer wants to fence a rectangular field that is 100 meters long and 50 meters wide. Which of the following are true about the perimeter of the field? (Select all that apply)

Hint: Calculate the perimeter using the given dimensions.

- ☐ A) The perimeter is 150 meters.
- ☐ B) The perimeter is 300 meters.
- ☐ C) The farmer needs 300 meters of fencing.
- ☐ D) The perimeter can be calculated using the formula 2(length + width).

Imagine you are designing a rectangular garden. If you have 60 meters of fencing available, what are some possible dimensions for the length and width of the garden?

Hint: Consider the relationship between length, width, and perimeter.

Part 4: Evaluation and Creation

Which of the following statements best describes the relationship between the perimeter and area of a shape?

Hint: Think about how perimeter and area are defined.

- ◯ A) They are always equal.
- ◯ B) Perimeter is a measure of length, while area is a measure of surface.
- ◯ C) Both are measured in square units.
- ◯ D) Increasing the perimeter always increases the area.

Consider a square and a rectangle with the same perimeter. Which of the following statements are true? (Select all that apply)

Hint: Think about the properties of squares and rectangles.

- ☐ A) The square will always have a larger area.
- ☐ B) The rectangle can have different dimensions but the same perimeter.
- ☐ C) Both shapes have the same number of sides.
- ☐ D) The perimeter formula for both shapes is the same.

Analyze the perimeter of a hexagon where each side measures 10 cm. Discuss how changing one side affects the overall perimeter.

Hint: Consider the definition of perimeter and how it is calculated.

A homeowner wants to install a new fence around a circular garden with a diameter of 10 meters. If the cost of fencing is $5 per meter, what is the total cost? (Use $\pi \approx 3.14$)

Hint: Calculate the circumference to find the total cost.

- ◯ A) $31.40
- ◯ B) $50.00
- ◯ C) $62.80

◯ D) $157.00

Evaluate the following scenarios and select which ones correctly describe situations involving perimeter. (Select all that apply)

Hint: Think about the practical applications of perimeter.

- ☐ A) Calculating the distance around a circular track.
- ☐ B) Measuring the space inside a room.
- ☐ C) Determining the length of ribbon needed to wrap a gift box.
- ☐ D) Finding the amount of paint needed to cover a wall.

Design a floor plan for a rectangular room with a perimeter of 24 meters. Include at least two different sets of dimensions and explain your reasoning.

Hint: Consider how length and width relate to perimeter.