

## Area And Perimeter Worksheets Answer Key PDF

Area And Perimeter Worksheets Answer Key PDF

*Disclaimer: The area and perimeter worksheets answer key pdf was generated with the help of StudyBlaze AI. Please be aware that AI can make mistakes. Please consult your teacher if you're unsure about your solution or think there might have been a mistake. Or reach out directly to the StudyBlaze team at [max@studyblaze.io](mailto:max@studyblaze.io).*

### Part 1: Building a Foundation

---

**What is the formula for the area of a rectangle?**

undefined. Length + Width

**undefined. Length × Width ✓**

undefined.  $2 \times (\text{Length} + \text{Width})$

undefined. Length<sup>2</sup>

The correct formula for the area of a rectangle is Length × Width.

**Which of the following are units of measurement for area?**

undefined. cm

**undefined. cm<sup>2</sup> ✓**

**undefined. m<sup>2</sup> ✓**

undefined. in

The correct units of measurement for area include cm<sup>2</sup> and m<sup>2</sup>.

**Define perimeter in your own words.**

**Perimeter is the total distance around the outside of a shape.**

**List the formulas for the perimeter of a square and the area of a triangle.**

1. Perimeter of a square:

**4 × side length**

2. Area of a triangle:

**1/2 × base × height**

The perimeter of a square is  $4 \times$  side length, and the area of a triangle is  $\frac{1}{2} \times$  base  $\times$  height.

**If a square has a side length of 5 cm, what is its perimeter?**

undefined. 10 cm

undefined. 15 cm

**undefined. 20 cm ✓**

undefined. 25 cm

The perimeter of the square is 20 cm.

## Part 2: Application and Analysis

---

**A rectangular garden has a length of 10 meters and a width of 4 meters. What is the area of the garden?**

undefined. 14 m<sup>2</sup>

**undefined. 40 m<sup>2</sup> ✓**

undefined. 28 m<sup>2</sup>

undefined. 20 m<sup>2</sup>

The area of the garden is 40 m<sup>2</sup>.

**You have a piece of fabric that is 3 meters long and 2 meters wide. Which of the following statements are true?**

**undefined. The area of the fabric is 6 m<sup>2</sup>. ✓**

**undefined. The perimeter of the fabric is 10 m. ✓**

undefined. The area of the fabric is 5 m<sup>2</sup>.

undefined. The perimeter of the fabric is 12 m.

The area is 6 m<sup>2</sup> and the perimeter is 10 m.

**Describe a real-world scenario where calculating the perimeter is necessary.**

**Calculating perimeter is necessary for tasks like fencing a yard or framing a picture.**

**A triangle has sides of 3 cm, 4 cm, and 5 cm. What type of triangle is this based on its side lengths?**

undefined. Equilateral

undefined. Isosceles

undefined. Scalene

**undefined. Right-angled ✓**

This triangle is a right-angled triangle.

**Consider a rectangle and a square with the same perimeter. Which of the following statements are true?**

undefined. They have the same area.

**undefined. The rectangle might have a larger area. ✓**

**undefined. The square might have a larger area. ✓**

**undefined. Their areas depend on their side lengths. ✓**

The rectangle might have a larger area, and the square might have a larger area depending on dimensions.

**Analyze how changing the length of one side of a rectangle affects its area and perimeter.**

**Changing one side length affects both area and perimeter, often increasing them.**

### Part 3: Evaluation and Creation

---

**Which shape will have a larger area: a rectangle with dimensions 6 cm by 4 cm or a square with side length 5 cm?**

**undefined. Rectangle ✓**

undefined. Square

undefined. Both have the same area

undefined. Can not be determined

The rectangle has a larger area than the square.

**Evaluate the following statements and select those that are correct regarding the relationship between area and perimeter:**

**undefined. Two shapes with the same perimeter can have different areas. ✓**

**undefined. Two shapes with the same area can have different perimeters. ✓**

undefined. Increasing the perimeter always increases the area.

undefined. Decreasing the area always decreases the perimeter.

Correct statements include that two shapes with the same perimeter can have different areas and vice versa.

**Design a simple garden layout using a combination of rectangles and circles. Calculate the total area and perimeter of your design.**

**The design should include calculations for total area and perimeter based on chosen dimensions.**

**Propose two different shapes with the same area but different perimeters. Describe each shape and provide their dimensions.**

1. Shape 1:

**Rectangle with dimensions 4 cm by 6 cm**

2. Shape 2:

**Square with side length 5 cm**

Examples could include a rectangle and a square with the same area but different dimensions.