

Homework Sample: Geometry Problem Solving

Topic: Calculate the Area of a Triangle with a Base of 10 cm and a Height of 5 cm

Grade Level: 6th Grade

Subject Area: Geometry

Specific Instructions: Use the formula for the area of a triangle and show the calculation.

Keywords to Include: Triangle, area, base, height, formula

Problem Statement:

You are given a triangle with a base of 10 cm and a height of 5 cm. Calculate the area of the triangle.

Solution:

To find the area of a triangle, use the following formula:

$$\text{Area} = \frac{1}{2} \times \text{base} \times \text{height}$$
$$\text{Area} = \frac{1}{2} \times 10 \text{ cm} \times 5 \text{ cm}$$
$$\text{Area} = 25 \text{ cm}^2$$

Step-by-Step Calculation:

- Identify the values:**
 - Base (b) = 10 cm
 - Height (h) = 5 cm
- Substitute the values into the formula:** $\text{Area} = \frac{1}{2} \times 10 \text{ cm} \times 5 \text{ cm}$
- Perform the multiplication:** $\text{Area} = \frac{1}{2} \times 50 \text{ cm}^2$
- Calculate the final result:** $\text{Area} = 25 \text{ cm}^2$

Answer:

The area of the triangle is 25 cm².

Explanation:

To find the area of a triangle, you multiply the base by the height and then divide the result by 2. In this case, multiplying 10 cm (base) by 5 cm (height) gives 50 cm². Dividing 50 cm² by 2 results in an area of 25 cm².