

Basic Geometry

Geometry · Grade 3

★ Hard · 10 Questions

Solve each problem. Show your work in the space provided. Write your answer on the line.

- Find the area of a triangle with base 14 m and height 9 m.

Answer: _____

- A triangle has area 30 cm^2 and height 6 cm.
Find its base.

Answer: _____

3. A room is $7\text{ m} \times 5\text{ m}$. Carpet costs \$12 per m^2 .

Total carpet cost?

Answer: _____

4. L-shape: total $10\text{ m} \times 6\text{ m}$ with a $4\text{ m} \times 3\text{ m}$ cut-out.

Find the area.

Answer: _____

5. Two squares have sides 5 cm and 8 cm.

How much greater is the larger area?

Answer: _____

6. Paint covers 10 m^2 per litre.
A wall is $8 \text{ m} \times 3 \text{ m}$ with two $1 \text{ m} \times 2 \text{ m}$ windows.
How many litres are needed?

Answer: _____

7. A rectangle has area 56 cm^2 and length 8 cm .
Find its width.

Answer: _____

8. A poster is 9 m by 7 m . A $3 \text{ m} \times 2 \text{ m}$ logo is glued on top.
What area of the poster is still showing?

Answer: _____

9. Two rectangles together form a shape:

A: $5\text{ m} \times 4\text{ m}$ and B: $3\text{ m} \times 4\text{ m}$

What is the total area?

Answer: _____

10. A square garden has area 64 m^2 .

Find the length of one side.

Answer: _____

Answer Key

Basic Geometry — Hard

1. **63 m²**

$Area = \frac{1}{2} \times 14 \times 9 = 63 \text{ m}^2.$

2. **10 cm**

$30 = \frac{1}{2} \times \text{base} \times 6. \text{ base} = 60 \div 6 = 10 \text{ cm}.$

3. **\$420**

$Area = 35 \text{ m}^2. \text{ Cost} = 35 \times \$12 = \$420.$

4. **48 m²**

$Total: 60 \text{ m}^2. \text{ Cut-out: } 12 \text{ m}^2. \text{ L-shape: } 60 - 12 = 48 \text{ m}^2.$

5. **39 cm²**

$64 - 25 = 39 \text{ cm}^2.$

6. **2 litres**

$Wall: 8 \times 3 = 24 \text{ m}^2. \text{ Windows: } 2 \times (1 \times 2) = 4 \text{ m}^2. \text{ Paintable: } 24 - 4 = 20 \text{ m}^2. \text{ Litres: } 20 \div 10 = 2.$

7. **7 cm**

$Width = \text{area} \div \text{length} = 56 \div 8 = 7 \text{ cm}.$

8. **57 m²**

$Poster: 9 \times 7 = 63 \text{ m}^2. \text{ Logo: } 6 \text{ m}^2. \text{ Showing: } 63 - 6 = 57 \text{ m}^2.$

9. **32 m²**

$A: 20 \text{ m}^2. B: 12 \text{ m}^2. \text{ Total: } 20 + 12 = 32 \text{ m}^2.$

10. **8 m**

$Side \times side = 64. 8 \times 8 = 64, \text{ so side} = 8 \text{ m}.$