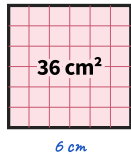


Squares and Square Roots

ANSWERS

1

A square has an area of 36 cm^2 . How long is each side?



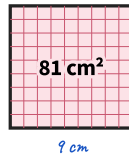
side $\times$ side = area, so the side is the square root of the area

$$\sqrt{36} = 6$$

Answer 6 cm

2

A square has an area of 81 cm^2 . How long is each side?

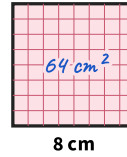


$$\sqrt{81} = 9$$

Answer 9 cm

3

A square has sides of 8 cm. What is its area?

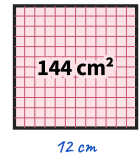


$$8^2 = 8 \times 8 = 64$$

Answer 64 cm^2

4

A square has an area of 144 cm^2 . How long is each side?

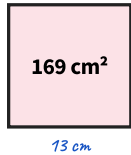


$$\sqrt{144} = 12$$

Answer 12 cm

5

A square has an area of 169 cm^2 . How long is each side?

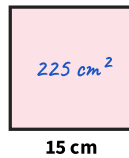


$$\sqrt{169} = 13$$

Answer 13 cm

6

A square has sides of 15 cm. What is its area?

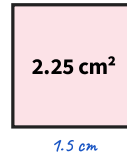


$$15^2 = 15 \times 15 = 225$$

Answer 225 cm^2

7

A square has an area of 2.25 cm^2 . How long is each side?

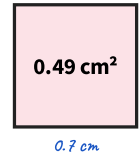


$$\sqrt{2.25} = 1.5$$

Answer 1.5 cm

8

A square has an area of 0.49 cm^2 . How long is each side?



$$\sqrt{0.49} = 0.7$$

Answer 0.7 cm

Squares and Square Roots *further practice*

ANSWERS

9

A square has an area of 0.64 cm^2 . How long is each side?



$$\sqrt{0.64} = 0.8 \text{ because } 0.8 \times 0.8 = 0.64$$

Answer 0.8 cm

10

Which of these are square numbers?

18 36 50 81 120 144

$$6^2 = 36, 9^2 = 81, 12^2 = 144$$

Answer 36, 81, 144

11

Write these in order, smallest first.

3^2 $\sqrt{121}$ 10 4^2

$$9, 11, 10, 16$$

Order $3^2, 10, \sqrt{121}, 4^2$

12

A square garden has an area of 81 m^2 . Work out the perimeter of the garden.

$$\text{each side is } \sqrt{81} = 9 \text{ m, } 4 \times 9$$

Answer 36 m

13

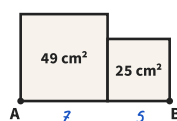
A square floor tile has sides of 0.3 m. Work out the area of the tile.

$$0.3 \times 0.3 = 0.09$$

Answer 0.09 m^2

14

Two squares are placed side by side. Find the length AB.



$$\sqrt{49} = 7 \text{ and } \sqrt{25} = 5$$

Answer 12 cm

15

Find two square numbers that add up to 74.

$$\text{try } 74 - 1, 74 - 4, 74 - 9 \dots$$

Answer 25 and 49

16

Ali says $\sqrt{36 + 64} = 6 + 8 = 14$. Is he right? Explain.

$$36 + 64 = 100 \text{ and } 10 \times 10 = 100$$

Answer No, it is $\sqrt{100} = 10$