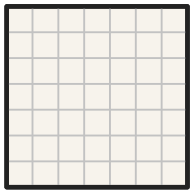
Squares and square roots

ANSWERS

1

Find the area of the square.
Count the small squares to check.



7 cm

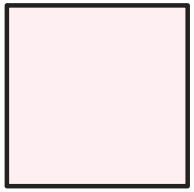
side × side = area

7 × 7 = 49

Area = 49 cm²

2

Find the area of the square.



12 cm

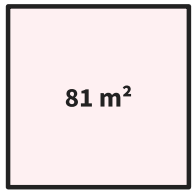
side × side = area

12 × 12 = 144

Area = 144 cm²

3

A square has an area of 81 m².
How long is each side?



9 m

side × side = area

9 × 9 = 81

Each side = 9 m

4

A square has an area of 196 cm².
How long is each side?



14 cm

side × side = area

14 × 14 = 196

Each side = 14 cm

5

A square badge has sides of 0.8 cm.
Work out its area.



0.8 cm

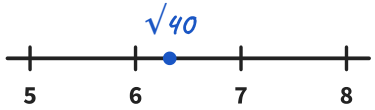
8 × 8 = 64

2 decimal places: 0.64

Area = 0.64 cm²

6

Between which two whole numbers is √40? Which one is it closer to?
Mark √40 on the number line.



$6^2 = 36$, $7^2 = 49$

40 is 4 from 36, 9 from 49

Answer 6 and 7, closer to 6

7

Ezra says √144 = 72. Explain what Ezra has done wrong. Then write the right answer.

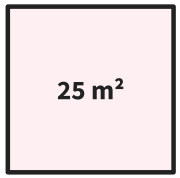
He halved 144. 72 × 72 = 5184

12 × 12 = 144

Answer √144 = 12

8

A square patio has an area of 25 m².
Work out the perimeter of the patio.



each side = √25 = 5 m

4 × 5 = 20

Perimeter = 20 m

Squares and square roots *further practice*

ANSWERS

9

A square has an area of 0.25 m².
How long is each side?



0.5 m

5 × 5 = 25

0.5 × 0.5 = 0.25

Each side = 0.5 m

10

Which of these are square numbers?

27 64 90 121 150 169

$8^2 = 64$, $11^2 = 121$, $13^2 = 169$

Answer 64, 121, 169

11

Write these in order, smallest first.

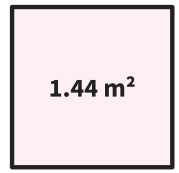
3.5 $\sqrt{10}$ 3^2 $\sqrt{16}$

$\sqrt{10}$ is just over 3, $\sqrt{16} = 4$, $3^2 = 9$

Order $\sqrt{10}$, 3.5, $\sqrt{16}$, 3^2

12

A square window has an area of
1.44 m². How wide is the window?



1.2 m

12 × 12 = 144

1.2 × 1.2 = 1.44

Width = 1.2 m

13

A square photo frame has a perimeter
of 28 cm. Work out its area.



each side = 28 ÷ 4 = 7 cm

7 × 7 = 49

Area = 49 cm²

14

Noor has 150 square tiles.
She makes the biggest square she can
with them. How many tiles are
left over?

$12^2 = 144$, $13^2 = 169$ is too many

150 − 144 = 6

Left over 6 tiles

15

Find two different numbers that give 64
when you square them.

8 × 8 = 64

−8 × −8 = 64 too

Answer 8 and −8

16

Mia says $0.3^2 = 0.9$. Is Mia right?
Explain how you know.

0.3 × 0.3: 3 × 3 = 9, 2 decimal places

0.3 × 3 = 0.9, not 0.3 × 0.3

Answer No, $0.3^2 = 0.09$