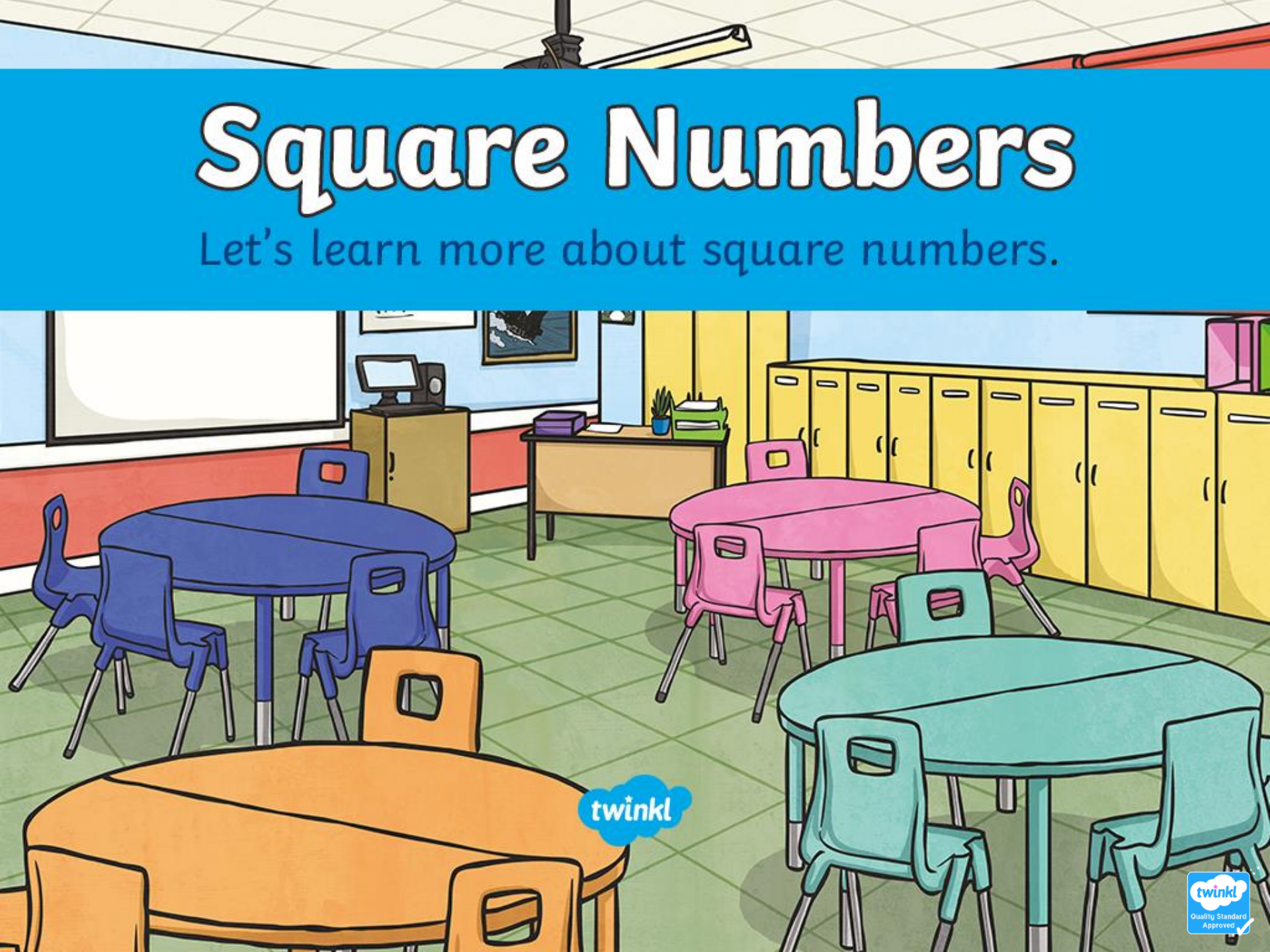
Square Numbers

Let's learn more about square numbers.



7^2 9^2 11^2 6^2 2^2 4^2

What is a Square Number?

A square number is the product you get when a number is multiplied by itself.

7^2 9^2 11^2 6^2 2^2 4^2

For Example...

$$2 \times 2 = 4$$

4 is a square number because it is the product of 2 multiplied by 2

7^2 9^2 11^2 6^2

2^2

$5 \times 5 = 25$

4^2

Can you explain why 25 is a square number?

25 is a square number because it is the product of 5 multiplied by 5.

7^2 9^2 11^2 6^2

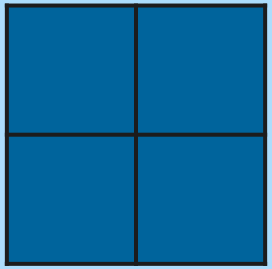
2^2 $12 \times 12 = 144$ 4^2

Can you explain why 144 is a square number?

144 is a square number because it is the product of 12 multiplied by 12.

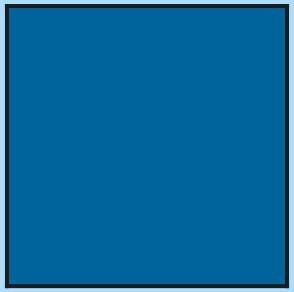
Where do square numbers get their name?

Square numbers get their name from the square shape they can make.



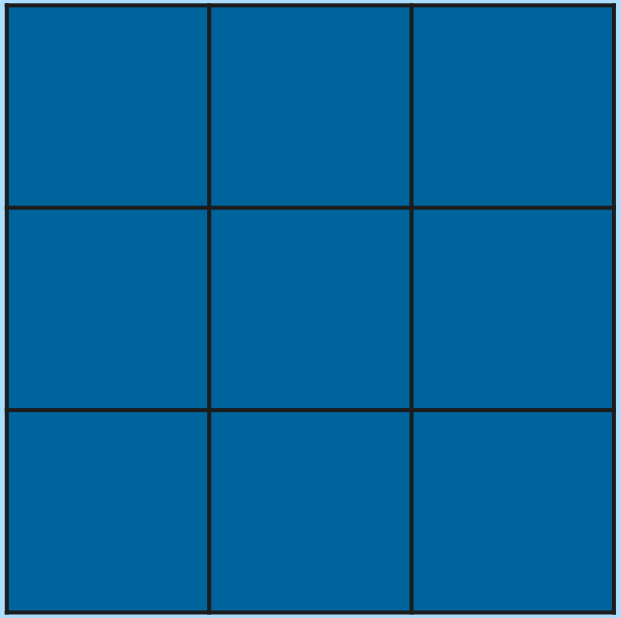
This square shows
2 x 2 = 4

Let's look at more square numbers!



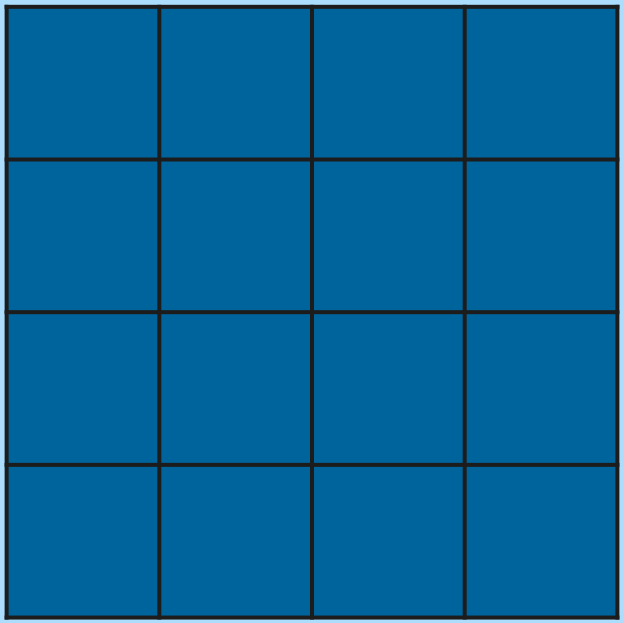
This shows 1 x 1 = 1

7^2 9^2 11^2 6^2 2^2 4^2



This shows 3 x 3 = 9

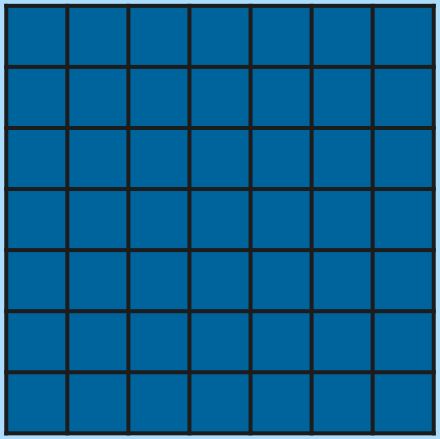
7^2 9^2 11^2 6^2 2^2 4^2



This shows 4 x 4 = 16

7^2 9^2 11^2 6^2 2^2 4^2

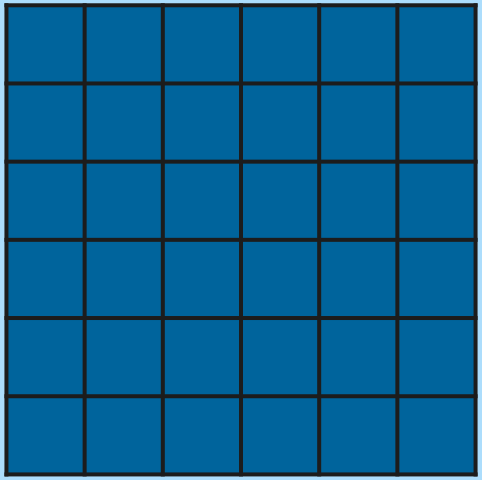
Can you work out what square number is illustrated here?



This shows 7 x 7= 49

7^2 9^2 11^2 6^2 2^2 4^2

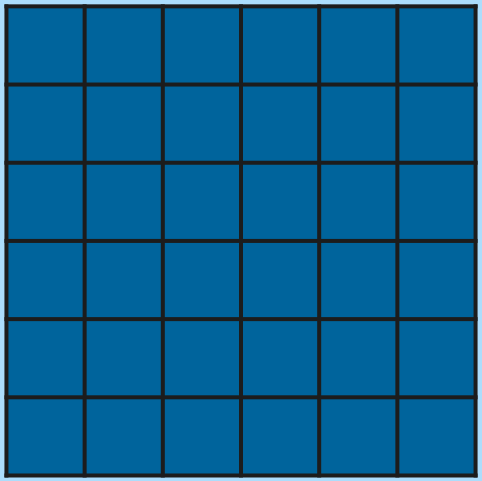
Can you work out what square number is illustrated here?



This shows 6 x 6 = 36

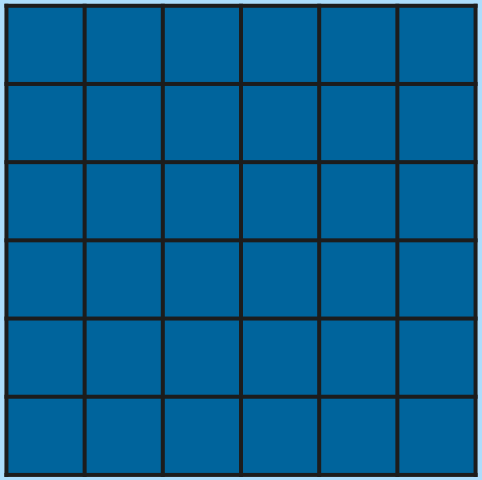
7^2 9^2 11^2 6^2 2^2 4^2

6 x 6 = 36



We can also write this as $6^2 = 36$

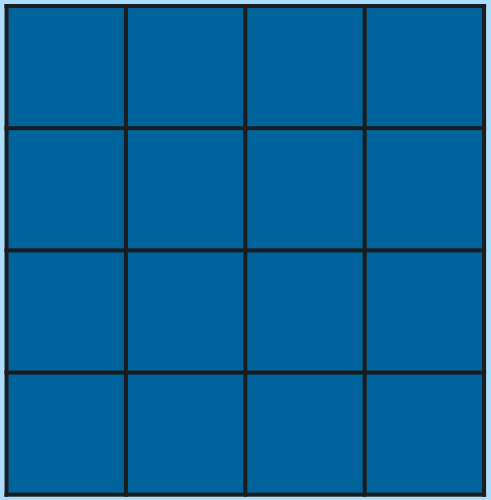
7^2 9^2 11^2 6^2 2^2 4^2



If 6 x 6 = 36 we can say that the square root of 36 is 6.

This is how we write it, $\sqrt{36} = 6$

7^2 9^2 11^2 6^2 2^2 4^2

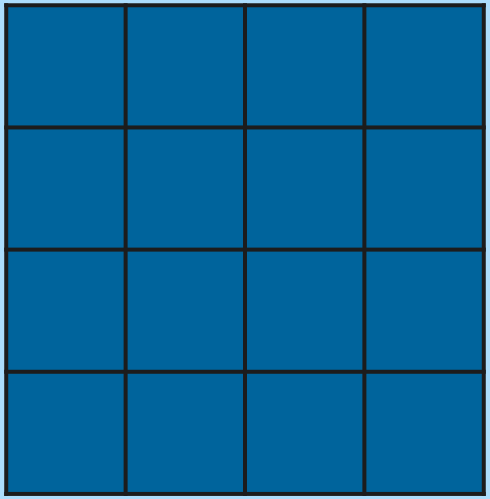


$4 \times 4 = 16$

or

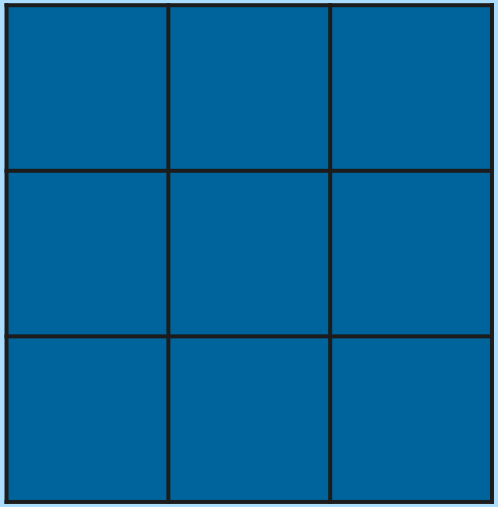
$4^2 = 16$

What is the square root of 16?



$4^2 = 16$, therefore $\sqrt{16} = 4$

7^2 9^2 11^2 6^2 2^2 4^2

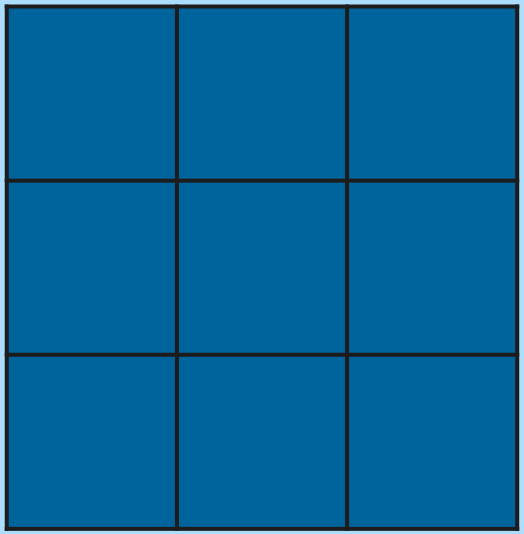


$3 \times 3 = 9$

or

$3^2 = 9$

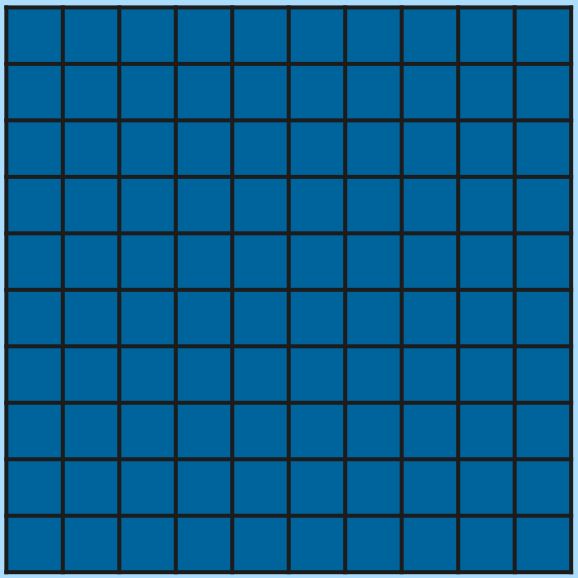
What is the square root of 9?



$3^2 = 9$, therefore $\sqrt{9} = 3$

7^2 9^2 11^2 6^2 2^2 4^2

Can you figure out the blanks below using this illustration to help?



$10^{\ 2} = 100$

therefore

$\sqrt{100} = 10$