

## Squares and Square Roots

$1^2$   
 $2^2$   
 $3^2$   
 $4^2$   
 $5^2$   
 $6^2$   
 $7^2$   
 $8^2$   
 $9^2$   
 $10^2$   
 $11^2$   
 $12^2$

## Solving Equations using Square Roots

Solve for  $c$ .

$$81 = c^2$$

$$c = \boxed{\phantom{00}} \text{ or } \boxed{\phantom{00}}$$

Solve for  $h$ .

$$100 = h^2$$

$$h = \boxed{\phantom{00}} \text{ or } \boxed{\phantom{00}}$$

Solve for  $w$ .

$$144 = w^2$$

$$w = \boxed{\phantom{00}} \text{ or } \boxed{\phantom{00}}$$

Solve for  $b$ .

$$b^2 = 36$$

$$b = \boxed{\phantom{00}} \text{ or } \boxed{\phantom{00}}$$

Solve for  $j$ .

$$25 = j^2$$

$$j = \boxed{\phantom{00}} \text{ or } \boxed{\phantom{00}}$$

Solve for  $q$ .

$$64 = q^2$$

$$q = \boxed{\phantom{00}} \text{ or } \boxed{\phantom{00}}$$

Solve for  $r$ .

$$49 = r^2$$

$$r = \boxed{\phantom{00}} \text{ or } \boxed{\phantom{00}}$$

Solve for  $g$ .

$$g^2 = 121$$

$$g = \boxed{\phantom{00}} \text{ or } \boxed{\phantom{00}}$$

Solve for  $q$ .

$$16 = q^2$$

$$q = \boxed{\phantom{00}} \text{ or } \boxed{\phantom{00}}$$

## Positive and Negative Square Roots

What is the positive square root of 1?

$$\boxed{\phantom{00}}$$

What is  $-\sqrt{25}$ ?

$$\boxed{\phantom{00}}$$

What is the positive square root of 36?

$$\boxed{\phantom{00}}$$

What is  $-\sqrt{3600}$ ?

$$\boxed{\phantom{00}}$$

What is the negative square root of 4?

$$\boxed{\phantom{00}}$$

What is  $-\sqrt{1}$ ?

$$\boxed{\phantom{00}}$$

What is  $\sqrt{64}$ ?

$$\boxed{\phantom{00}}$$

What is  $-\sqrt{196}$ ?

$$\boxed{\phantom{00}}$$

What is  $\pm\sqrt{169}$  ?

or

What are the square roots of 900?

and

## Estimating Square Roots

Not a perfect square? Answer will be an irrational number!

Determine which two squares that number is between.

Which two integers is  $\sqrt{132}$  between?

-12 and -11

-11 and -10

10 and 11

11 and 12

1  
4  
9  
16  
25  
36  
49  
64  
81  
100  
121  
144

Which two integers is  $\sqrt{117}$  between?

11 and 12

10 and 11

7 and 8

8 and 9

Complete the following statement. Use the integers that are closest to the number in the middle.

$< \sqrt{90} <$

Complete the following statement. Use the integers that are closest to the number in the middle.

$< \sqrt{63} <$

Complete the following statement. Use the integers that are closest to the number in the middle.

$< -\sqrt{116} <$

Complete the following statement. Use the integers that are closest to the number in the middle.

$< -\sqrt{69} <$

1  
4  
9  
16  
25  
36  
49  
64  
81  
100  
121  
144

Which number is closest to  $-\sqrt{117}$  ?

-10.8

-11.4

-11.2

-9.7

Which number is closest to  $\sqrt{98}$  ?

10.5

8.6

9.8

10.3

1  
4  
9  
16  
25  
36  
49  
64  
81  
100  
121  
144

Which number is closest to  $\sqrt{2}$  ?

2.5

1.4

0.6

1.6

Which number is closest to  $-\sqrt{113}$  ?

-9.5

-9.8

-11.4

-10.6

Which number is closest to  $\sqrt{27}$  ?

5.9

5.8

6.5

5.1

1  
4  
9  
16  
25  
36  
49  
64  
81  
100  
121  
144