

1. Find  $\sqrt{49}$ .
2. Find  $\sqrt{100}$ .
3. Find  $\sqrt{121}$ .
4. Find  $\sqrt{169}$ .
5. Find  $\sqrt{361}$ .
6. Find  $\sqrt{576}$ .
7. What are the positive and negative roots of 3,600?
8. What is  $\pm\sqrt{81}$ ?
9. What is  $\pm\sqrt{1,600}$ ?
10. **Interior Design.** Cole is installing 1-inch square tiles in his entryway. What are the dimensions of the square entryway if he is using 1,296 tiles?

## KEYS

**Remember**

- To find the square root of a given number, figure out which number squared (multiplied by itself) equals that given number.
- Every positive number has both a positive and a negative square root.
- The radical symbol ( $\sqrt{\quad}$ ) means the positive square root.

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1. Find  $\sqrt{49}$

Since  $7^2 = 49$ ,  $\sqrt{49} = 7$ .

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2. Find  $\sqrt{100}$

Since  $10^2 = 100$ ,  $\sqrt{100} = 10$ .

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3. Find  $\sqrt{121}$

Since  $11^2 = 121$ ,  $\sqrt{121} = 11$ .

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4. Find  $\sqrt{169}$

Since  $13^2 = 169$ ,  $\sqrt{169} = 13$ .

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5. Find  $\sqrt{361}$

Since  $19^2 = 361$ ,  $\sqrt{361} = 19$ .

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6. Find  $\sqrt{576}$

Since  $24^2 = 576$ ,  $\sqrt{576} = 24$ .

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7. What are the positive and negative roots of 3,600?

Start by finding the positive square root of 3,600.  
Figure out which number squared (multiplied by itself) equals 3,600.  
You know that 6 squares is 36, so 60 squared equals 3,600.

$$60^2 = 60 \times 60 = 3,600$$

So the positive square root of 3,600 is 60.  
Finally, include the negative sign to get the negative square root.  
The negative square root of 3,600 is -60.

The positive and negative square roots of 3,600 are 60 and -60.

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8. What is  $\pm\sqrt{81}$ ?

Start by finding the positive square root of 81.  
Figure out which number squared (multiplied by itself) equals 81.  
The number 9 squared equals 81.

$$9^2 = 9 \times 9 = 81$$

$$\sqrt{81} = 9.$$

Finally, include the negative sign to get the negative square root.

$$-\sqrt{81} = -9.$$

$\pm\sqrt{81}$  is 9 or - 9.

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9. What is  $\pm\sqrt{1,600}$ ?

Start by finding the positive square root of 1,600.  
Figure out which number squared (multiplied by itself) equals 1,600.  
The number 40 squared equals 1,600.

$$40^2 = 40 \times 40 = 1,600$$

$$\sqrt{1,600} = 40.$$

Finally, include the negative sign to get the negative square root.

$$-\sqrt{1,600} = -40.$$

$\pm\sqrt{1,600}$  is 40 or - 40.

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10. **Interior Design.** Cole is installing 1-inch square tiles in his entryway. What are the dimensions of the square entryway if he is using 1,296 tiles?

Since  $36^2 = 1,296$ ,  $\sqrt{1,296} = 36$ .

The dimensions of the square entryway are 36 inches x 36 inches.

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