

# SQUARE ROOTS *and* CUBE ROOTS

Finding a **square root** of a number is the opposite of squaring the number. The  $\sqrt{\quad}$  symbol is used to show square roots.

For example, a square root of 16 is 4.

$$\sqrt{16} = 4 \text{ since } 4^2 = 16$$

Finding the **cube root** of a number is the opposite of cubing the number. The  $\sqrt[3]{\quad}$  symbol is used to show cube roots.

For example, the cube root of 125 is 5.

$$\sqrt[3]{125} = 5 \text{ since } 5^3 = 125$$

**Find each square root.**

1.  $\sqrt{4} = \underline{\hspace{2cm}}$

2.  $\sqrt{25} = \underline{\hspace{2cm}}$

3.  $\sqrt{49} = \underline{\hspace{2cm}}$

4.  $\sqrt{1} = \underline{\hspace{2cm}}$

5.  $\sqrt{9} = \underline{\hspace{2cm}}$

6.  $\sqrt{64} = \underline{\hspace{2cm}}$

7.  $\sqrt{36} = \underline{\hspace{2cm}}$

8.  $\sqrt{144} = \underline{\hspace{2cm}}$

9.  $\sqrt{169} = \underline{\hspace{2cm}}$

10.  $\sqrt{121} = \underline{\hspace{2cm}}$

11.  $\sqrt{400} = \underline{\hspace{2cm}}$

12.  $\sqrt{225} = \underline{\hspace{2cm}}$

**Find each cube root.**

13.  $\sqrt[3]{8} = \underline{\hspace{2cm}}$

14.  $\sqrt[3]{1} = \underline{\hspace{2cm}}$

15.  $\sqrt[3]{27} = \underline{\hspace{2cm}}$

16.  $\sqrt[3]{512} = \underline{\hspace{2cm}}$

17.  $\sqrt[3]{343} = \underline{\hspace{2cm}}$

18.  $\sqrt[3]{1,728} = \underline{\hspace{2cm}}$

19.  $\sqrt[3]{1,331} = \underline{\hspace{2cm}}$

20.  $\sqrt[3]{729} = \underline{\hspace{2cm}}$

21.  $\sqrt[3]{1,000} = \underline{\hspace{2cm}}$

**CHALLENGE YOURSELF!** Answer each question.

22. What number has a square root of 10?

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23. What number has a cube root of 6?

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24. What is the square root of the square root of 81?

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