

Evaluating Cube Roots

Evaluating the **cube root** of a number is the opposite of cubing a number. Remember, cubing a number means using it as a factor in multiplication three times. Cube roots are shown using the $\sqrt[3]{\quad}$ symbol.



Consider this example:

$$\sqrt[3]{64} = ?$$

You know that $4^3 = 4 \times 4 \times 4 = 64$.

$$\text{So, } \sqrt[3]{64} = 4.$$

Evaluate the cube root of each perfect cube.

$$\sqrt[3]{27} = \underline{3}$$

$$\sqrt[3]{8} = \underline{2}$$

$$\sqrt[3]{125} = \underline{5}$$

$$\sqrt[3]{1} = \underline{1}$$

$$\sqrt[3]{1,000} = \underline{10}$$

$$\sqrt[3]{343} = \underline{7}$$

$$\sqrt[3]{216} = \underline{6}$$

$$\sqrt[3]{729} = \underline{9}$$

$$\sqrt[3]{512} = \underline{8}$$

$$\sqrt[3]{1,728} = \underline{12}$$

$$\sqrt[3]{3,375} = \underline{15}$$

$$\sqrt[3]{8,000} = \underline{20}$$