



# Solve Cube Root Equations

**Directions:** Solve each equation for the variable. If the given number is not a perfect cube, write your answer using the cube root symbol.

$$\begin{aligned} \textcircled{1} \quad h^3 &= 27 \\ h &= 3 \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad v^3 &= 8 \\ v &= 2 \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad f^3 &= -64 \\ f &= -4 \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad t^3 &= 18 \\ t &= \sqrt[3]{18} \end{aligned}$$

$$\begin{aligned} \textcircled{5} \quad x^3 &= -1 \\ x &= -1 \end{aligned}$$

$$\begin{aligned} \textcircled{6} \quad d^3 &= 30 \\ d &= \sqrt[3]{30} \end{aligned}$$

$$\begin{aligned} \textcircled{7} \quad j^3 &= -216 \\ j &= -6 \end{aligned}$$

$$\begin{aligned} \textcircled{8} \quad y^3 &= -100 \\ y &= \sqrt[3]{-100} \end{aligned}$$

$$\begin{aligned} \textcircled{9} \quad a^3 &= -343 \\ a &= -7 \end{aligned}$$

$$\begin{aligned} \textcircled{10} \quad b^3 &= -1,728 \\ b &= -12 \end{aligned}$$

$$\begin{aligned} \textcircled{11} \quad r^3 &= 1,331 \\ r &= 11 \end{aligned}$$

$$\begin{aligned} \textcircled{12} \quad n^3 &= 128 \\ n &= \sqrt[3]{128} \text{ (or } 4\sqrt[3]{2} \text{ )} \end{aligned}$$

$$\begin{aligned} \textcircled{13} \quad p^3 &= 54 \\ p &= \sqrt[3]{54} \text{ (or } 3\sqrt[3]{2} \text{ )} \end{aligned}$$

$$\begin{aligned} \textcircled{14} \quad w^3 &= 15,625 \\ w &= 25 \end{aligned}$$

$$\begin{aligned} \textcircled{15} \quad m^3 &= -3,375 \\ m &= -15 \end{aligned}$$

$$\begin{aligned} \textcircled{16} \quad z^3 &= 250 \\ z &= \sqrt[3]{250} \text{ (or } 5\sqrt[3]{2} \text{ )} \end{aligned}$$

$$\begin{aligned} \textcircled{17} \quad g^3 &= -8,000 \\ g &= -20 \end{aligned}$$

$$\begin{aligned} \textcircled{18} \quad c^3 &= 64,000 \\ c &= 40 \end{aligned}$$