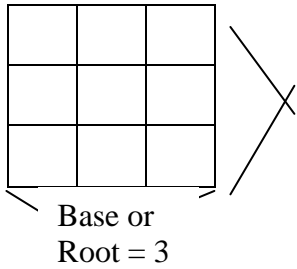


Inverse Operations: Operations that undo one another

Squares and square roots are inverse operations.



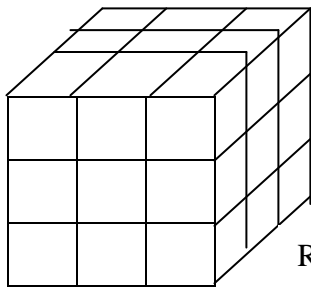
$$3^2 = 9 \quad \text{“square”}$$

$$\sqrt{9} = 3 \quad \text{“square root”}$$

Solve each of the following equations. Make sure to give the complete answer.

1. $\sqrt{x} = 10$	2. $\sqrt{x} = 4$	3. $\sqrt{x} = 3$
4. $\sqrt{x} = 7$	5. $x^2 = 36$	6. $x^2 = 144$

Cubes and cube roots are inverse operations.



Root = 3

$$3^3 = 27 \quad \text{“cube”}$$

$$\sqrt[3]{27} = 3 \quad \text{“cube root”}$$

Root = 3

Root = 3

Solve each of the following.

1. $\sqrt[3]{8} = x$	2. $\sqrt[3]{64} + x = \sqrt[3]{343}$	3. $3 = \sqrt[3]{x}$
4. $\sqrt[3]{x} - 1 = 4$	5. $x^3 - 9 = 216$	6. $4 - x^3 = 5$

7. The formula for the volume of a sphere is $V = \frac{4}{3}\pi r^3$. If the volume of a given sphere is 2304π , determine the radius of the sphere.