

## Exponents In Algebra

**1** Solve.

$$8^0 = \underline{1}$$

$$b^0 = \underline{1}$$

**2** Solve.

$$8^1 = \underline{8}$$

$$b^1 = \underline{b}$$

**3** Solve.

$$(\sqrt{10})^2 = \underline{10}$$

$$(\sqrt[3]{15})^3 = \underline{15}$$

**4** Solve. (assume  $x \geq 0$ )

$$\sqrt{x^2} = \underline{x}$$

$$\sqrt[3]{x^3} = \underline{x}$$

**5** Solve for x.

$$\sqrt{x} = 5$$

$$\sqrt{x}^2 = 5^2$$

$$\underline{x = 25}$$

**6** Solve for x.

$$x^2 = 49$$

$$\sqrt{x^2} = \pm\sqrt{49}$$

$$\underline{x = \pm 7}$$

**7** Solve for x.

$$\sqrt{x} = 10$$

$$\sqrt{x}^2 = 10^2$$

$$\underline{x = 100}$$

**8** Solve for x.

$$x^2 = 81$$

$$\sqrt{x^2} = \pm\sqrt{81}$$

$$\underline{x = \pm 9}$$

**9** Solve for x.

$$\sqrt[3]{x} = 4$$

$$\sqrt[3]{x}^3 = 4^3$$

$$\underline{x = 64}$$

**10** Solve for x.

$$x^4 = 16$$

$$\sqrt[4]{x^4} = \pm\sqrt[4]{16}$$

$$\underline{x = \pm 2}$$