

## Solving Equations with Rational Exponents

$$x^{\frac{a}{b}}$$

$$27^{\frac{2}{3}} =$$

$$(-8)^{\frac{5}{3}} =$$

Directions: Solve each equation.

1.  $x^{\frac{2}{3}} - 16 = 0$

2.  $(x+4)^{\frac{4}{3}} = 81$

3.  $(2x+6)^{\frac{3}{2}} = -125$

4.  $x^{\frac{2}{3}} - 3x^{\frac{1}{3}} = -2$

5.  $-2x - 5x^{\frac{1}{2}} + 3 = 0$

6.  $x^{\frac{2}{5}} - 5x^{\frac{1}{5}} + 6 = 0$

$$7. 2x^{\frac{2}{3}} - 7x^{\frac{1}{3}} + 6 = 0$$