Solve by using the Square Root Method

3. 3x^2=75

4. (5x+3)^2=12

Solution

3.

$$3x^2 = 75,$$

$$x^2 = \frac{75}{3} = 25,$$

$$x = \pm\sqrt{25} = \pm 5.$$

Answer: $x_1 = 5,\ x_2 = -5.$

4.

$$(5x + 3)^2 = 12,$$

$$5x + 3 = \pm\sqrt{12} = \pm 2\sqrt{3};$$

a) $5x + 3 = 2\sqrt{3}, x = \frac{2\sqrt{3}-3}{5}$;

b) $5x + 3 = -2\sqrt{3}$, $x = \frac{-2\sqrt{3}-3}{5}$.

Answer: $x_1 = \frac{2\sqrt{3}-3}{5}, x_2 = \frac{-2\sqrt{3}-3}{5}$.