## 11.2 – Solving Quadratics Using Square Roots

1. Rewrite the equation in the form $ax^2 = c$.
2. Isolate $x^2$.
3. Find square roots. **✳ Remember + and − values!**

Examples:

1. $5x^2 - 180 = 0$

$$5x^2 = 180$$
$$x^2 = 36$$
$$x = \pm 6$$

2. $4x^2 - 25 = 0$

$$4x^2 = 25$$
$$x^2 = \frac{25}{4}$$
$$x = \pm \frac{5}{2}$$

3. $3x^2 = 24$

$$x^2 = 8$$
$$x = \pm \sqrt{8}$$
$$x = \pm 2\sqrt{2}$$

$$\begin{array}{r} 2 \, | \, 8 \\ 2 \, | \, 4 \\ \textcircled{2} \end{array}$$

4. $x^2 - \frac{1}{4} = 0$

$$x^2 = \frac{1}{4}$$
$$x = \pm \frac{1}{2}$$