

1. Solve this equation: $2x^2 + 7 = 79$

Simplify each square root.

2. $\sqrt{50}$

3. $\sqrt{24}$

4. $\sqrt{150}$

5. $\sqrt{108}$

6. $\sqrt{288}$

1. Solve this equation:

$$\begin{array}{r} 2x^2 + 7 = 79 \\ -7 \quad -7 \\ \hline 2x^2 = 72 \\ \hline x^2 = 36 \end{array}$$

$$\sqrt{x^2} = \sqrt{36}$$

ANSWERS

$$x = \pm 6$$

Simplify each square root.

$$\begin{aligned} 2. \quad \sqrt{50} &= \sqrt{25 \cdot 2} = \sqrt{25} \cdot \sqrt{2} \\ &= 5\sqrt{2} \end{aligned}$$

$$\begin{aligned} 3. \quad \sqrt{24} &= \sqrt{4 \cdot 6} = \sqrt{4} \cdot \sqrt{6} \\ &= 2\sqrt{6} \end{aligned}$$

$$\begin{aligned} 4. \quad \sqrt{150} &= \sqrt{25 \cdot 6} = \sqrt{25} \cdot \sqrt{6} \\ &= 5\sqrt{6} \end{aligned}$$

$$\begin{aligned} 5. \quad \sqrt{108} &= \sqrt{36 \cdot 3} = \sqrt{36} \cdot \sqrt{3} \\ &= 6\sqrt{3} \end{aligned}$$

$$\begin{aligned} 6. \quad \sqrt{288} &= \sqrt{144 \cdot 2} = \sqrt{144} \cdot \sqrt{2} \\ &= 12\sqrt{2} \end{aligned}$$