

$$\frac{\sqrt{5}}{\sqrt{8}} \cdot \frac{\sqrt{8}}{\sqrt{8}} = \frac{\sqrt{40}}{8} = \frac{\sqrt{4}\sqrt{10}}{8}$$

$$\frac{2\sqrt{10}}{8} = \frac{\sqrt{10}}{4}$$

$$\frac{\sqrt{7}}{\sqrt{12}} \cdot \frac{\sqrt{12}}{\sqrt{12}} = \frac{\sqrt{84}}{12}$$

$$\frac{\sqrt{4}\sqrt{21}}{12} = \frac{2\sqrt{21}}{12} = \frac{\sqrt{21}}{6}$$

$$\frac{4\sqrt{3}}{\sqrt{8}} \cdot \frac{\sqrt{4}}{\sqrt{4}} = \frac{4\sqrt{12}}{8} = \frac{\sqrt{4}\sqrt{6}}{2}$$

$$\frac{2\sqrt{6}}{2} = \sqrt{6}$$

$$\frac{3\sqrt{5}}{\sqrt{13}} \cdot \frac{\sqrt{13}}{\sqrt{13}} = \frac{3\sqrt{65}}{13}$$

$$\frac{\sqrt{20}}{\sqrt{6}}$$

$$\frac{\sqrt{15}}{\sqrt{12}} \cdot \frac{\sqrt{12}}{\sqrt{12}} = \frac{\sqrt{180}}{12}$$

$$\frac{\sqrt{36} \cdot \sqrt{5}}{12} = \frac{\cancel{6}\sqrt{5}}{\cancel{12}2}$$

$$\frac{6 \cdot \sqrt{5}}{12} = \frac{\sqrt{5}}{2}$$

$$\frac{3\sqrt{10}}{6\sqrt{5}} \cdot \frac{\sqrt{5}}{\sqrt{5}} = \frac{\cancel{3}\sqrt{50}}{\cancel{6}2 \cdot 5}$$

$$\frac{\sqrt{25} \cdot \sqrt{2}}{10} = \frac{\cancel{5}\sqrt{2}}{\cancel{10}2}$$

$$\frac{2\sqrt{7}}{\sqrt{18}} \cdot \frac{\sqrt{18}}{\sqrt{18}} = \frac{\cancel{2}\sqrt{126}}{\cancel{18}9}$$

$$\frac{\sqrt{9} \sqrt{14}}{9} = \frac{\cancel{3}\sqrt{14}}{\cancel{9}3}$$

Solving Quadratic Equations using the Square Root Property

$$2^2 = \sqrt{4} = 2$$

$$-2^2 = -\sqrt{4} = -2$$

$$\sqrt{x^2} = \pm\sqrt{9}$$

$$\pm\sqrt{9} = \pm 3$$

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

$$x = \pm\sqrt{4}\sqrt{2}$$

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

$$\sqrt{x^2} = \pm\sqrt{20}$$

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

$$\sqrt{x^2} = \pm\sqrt{9}$$

$$x = \pm 3$$

$$x = 3$$

$$x = -3$$

Solve

$$\sqrt{x^2} \cong \sqrt{48}$$

$\sqrt{16} \cdot \sqrt{3}$

$$x = \pm 4\sqrt{3}$$

$$\sqrt{x^2} \cong \sqrt{50}$$

$\sqrt{25} \sqrt{2}$

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

$$x^2 = 72$$

$$x^2 = 162$$