

Sec. 10.2 Simplifying Radicals

$$\sqrt{ab} = \sqrt{a} \cdot \sqrt{b}$$

$$\sqrt{\frac{a}{b}} = \frac{\sqrt{a}}{\sqrt{b}}$$

Simplify:

a. $\sqrt{125}$

b. $\sqrt{72}$

$$c. \sqrt{243x^5}$$

$$d. 3\sqrt{12x^2} \cdot 5\sqrt{4x}$$

$$e. 7\sqrt{5x} \cdot 3\sqrt{20x^5}$$

Simplify

a. $\sqrt{\frac{121}{81}}$

b. $\sqrt{\frac{27x^5}{48x}}$

c. $\sqrt{\frac{36a}{4a^3}}$

Rationalizing the denominator

a. $\frac{\sqrt{2}}{\sqrt{3}}$

b. $\sqrt{\frac{7s}{5}}$