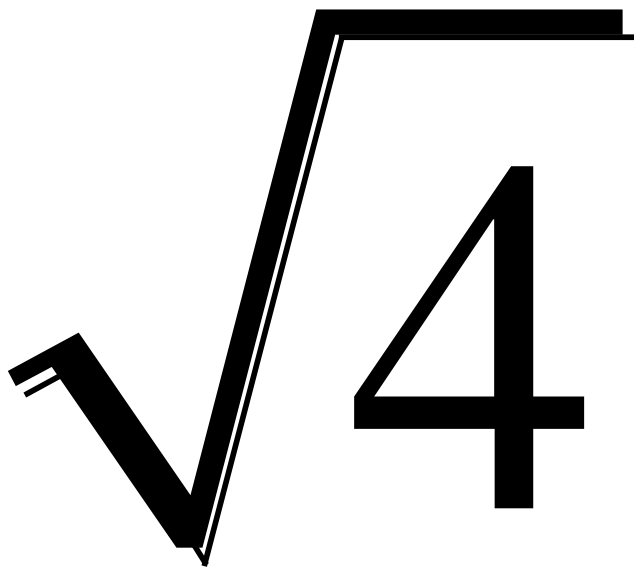


8.1

Simplifying Square Roots

Roots Review

Parts of a Root



Roots Review

Parts of a Root

$$2\sqrt{4}$$

Roots Review

Cube Root

$$\sqrt[3]{8}$$

Roots Review

Perfect Roots that you should memorize

$$\sqrt{1}$$

$$\sqrt{49}$$

$$\sqrt{169}$$

$$\sqrt{4}$$

$$\sqrt{64}$$

$$\sqrt{196}$$

$$\sqrt{9}$$

$$\sqrt{81}$$

$$\sqrt{225}$$

$$\sqrt{16}$$

$$\sqrt{100}$$

$$\sqrt{256}$$

$$\sqrt{25}$$

$$\sqrt{121}$$

$$\sqrt{400}$$

$$\sqrt{36}$$

$$\sqrt{144}$$

$$\sqrt{625}$$

Roots Review

Simplifying Roots

$$\sqrt{20}$$

$$\sqrt{18}$$

$$\sqrt{32}$$

$$\sqrt{72}$$

Roots Review

Simplifying Roots

$$\sqrt{500}$$

$$\sqrt{162}$$

Simplifying Square Roots

Product Property of Square Roots

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

$$\sqrt{36}$$

$$-\sqrt{900}$$

Simplifying Square Roots

**Quotient Property of
Square Roots**

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

$$\begin{aligned} & \sqrt{\frac{36}{121}} \\ &= \frac{\sqrt{36}}{\sqrt{121}} \\ &= \frac{6}{11} \end{aligned}$$

Simplifying Irrational Square Roots

$$3\sqrt{28}$$

$$7\sqrt{125}$$

Lesson

Simplify

$$25\sqrt{2} + 2\sqrt{27} - 3\sqrt{98}$$

Roots Review

Multiplying Roots

$$\sqrt{3} \cdot \sqrt{5}$$

$$\sqrt{7} \cdot \sqrt{7}$$

$$(\sqrt{5})^2$$

Roots Review

Multiplying Roots

$$5\sqrt{2} \cdot 4\sqrt{3}$$

$$(4\sqrt{3})^2$$

$$(3\sqrt{6})(2\sqrt{3})$$

Multiplying Radicals

$$1) \quad 5\sqrt{3} \cdot 8\sqrt{21}$$

Multiplying Radicals

$$2) \quad 3\sqrt{2} \cdot 4\sqrt{18}$$

Multiplying Radicals

$$3) \sqrt{\frac{10}{3}} \cdot \sqrt{\frac{27}{32}}$$

Multiplying Radicals

$$4) \sqrt{\frac{3}{7}} \cdot \sqrt{\frac{14}{27}}$$

Dividing Radicals

$$5) \quad \frac{3}{\sqrt{5}}$$

Dividing Radicals

$$6) \sqrt{\frac{7}{8}}$$

Dividing Radicals

$$7) \frac{9\sqrt{3}}{\sqrt{24}}$$

Dividing Radicals

$$8) \frac{\sqrt{75}}{2\sqrt{18}}$$