

Algebra I

11-8

Adding and Subtracting Radicals

Simplify.

$$*1) \frac{3\sqrt{2} + 5\sqrt{2}}{8\sqrt{2}}$$

$$*2) \frac{7\sqrt{5} + 5\sqrt{7}}{\text{can't do as is}}$$

Simplify. For part

- a) simplify,
b) round to the nearest hundredth.

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$$1) 8\sqrt{3} - 6\sqrt{3}$$

$$a) 2\sqrt{3}$$

$$b) 3.46$$

$$5) 5\sqrt{3} + 2\sqrt{75}$$

$$5\sqrt{3} + 2\sqrt{25 \cdot 3}$$

$$5\sqrt{3} + 10\sqrt{3}$$

$$a) 15\sqrt{3}$$

$$b) 25.98$$

Simplify. For part

- a) simplify,
b) round to the nearest hundredth.

$$15) 5\sqrt{28} + 2\sqrt{7} - \sqrt{14}$$

$$5\sqrt{4 \cdot 7} + 2\sqrt{7} - \sqrt{14}$$

$$10\sqrt{7} + 2\sqrt{7} - \sqrt{14}$$

$$a) 12\sqrt{7} - \sqrt{14}$$

$$b) 28.01$$

$$19) \sqrt{55} - 7\sqrt{\frac{5}{11}}$$

$$\sqrt{55} - \frac{7\sqrt{5} \cdot \sqrt{11}}{\sqrt{11} \cdot \sqrt{11}}$$

$$\text{common denom. } \frac{11\sqrt{55}}{11} - \frac{7\sqrt{55}}{11}$$

$$a) \frac{4\sqrt{55}}{11}$$

$$b) 2.70$$

Simplify. For part

- a) simplify,
b) round to the nearest hundredth.

$$23) \sqrt{\frac{5}{11}} - \sqrt{\frac{11}{5}}$$

$$\frac{\sqrt{5} \sqrt{11}}{\sqrt{11} \sqrt{11}} - \frac{\sqrt{11} \sqrt{5}}{\sqrt{5} \sqrt{5}}$$

$$\frac{5\sqrt{55}}{5 \cdot 11} - \frac{11\sqrt{55}}{11 \cdot 5}$$

$$\frac{5\sqrt{55}}{55} - \frac{11\sqrt{55}}{55}$$

$$a) \frac{-6\sqrt{55}}{55}$$

$$b) -0.81$$

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2-32 even
part a + b
for each