

Radical Addition / Binomial Operations - Homework

Date _____

Simplify.

1) $-5\sqrt{6} + 4\sqrt{6}$

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

3) $-\sqrt{8} - 2\sqrt{45} - 2\sqrt{45}$

4) $-2\sqrt{2} - 2\sqrt{27} - 2\sqrt{3}$

5) $-\sqrt[3]{4} + 3\sqrt[3]{162} + 2\sqrt[3]{4}$

6) $-\sqrt[3]{-4} - 2\sqrt[3]{40} - 2\sqrt[3]{-135}$

7) $\sqrt{5}(\sqrt{2} + \sqrt{10})$

8) $(2\sqrt{5} + 3\sqrt{2})(4\sqrt{3} + \sqrt{2})$

$$9) (2\sqrt{5} + \sqrt{3})(3\sqrt{3} + \sqrt{3})$$

$$10) \frac{\sqrt{3}}{4 + \sqrt{3}}$$

$$11) \frac{5}{2\sqrt{2} + 4}$$

$$12) \frac{5}{3\sqrt{2} - 2}$$

$$13) \frac{5 - \sqrt{2}}{3 - \sqrt{2}}$$

$$14) \frac{\sqrt{2} + \sqrt{5}}{\sqrt{2} + \sqrt{3}}$$

Answers to Radical Addition / Binomial Operations - Homework (ID: 1)

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

$$9) 8\sqrt{15} + 12$$

$$3) -2\sqrt{2} - 12\sqrt{5}$$

$$11) \frac{-5\sqrt{2} + 10}{4}$$

$$5) \sqrt[3]{4} + 9\sqrt[3]{6}$$

$$13) \frac{13 + 2\sqrt{2}}{7}$$

$$7) \sqrt{10} + 5\sqrt{2}$$