

Name: _____

Unit 11: Radicals

Date: _____ Bell: _____

Homework 3: Adding/Subtracting Radicals**Directions:** Find each sum or difference. Write your answer in simplest radical form.

1. $\sqrt{2} + \sqrt{2}$

2. $-2\sqrt{18} + 2\sqrt{2}$

3. $-5\sqrt{243} - 3\sqrt{27}$

4. $\sqrt{500} + \sqrt{20} + 11\sqrt{5}$

5. $2\sqrt{45} + 2\sqrt{90} + 3\sqrt{45}$

6. $3\sqrt{54} + 3\sqrt{3} - 2\sqrt{384}$

7. $3\sqrt{7} + 2\sqrt{32} - 4\sqrt{175}$

8. $\sqrt{20} + 2\sqrt{80} + \sqrt{72} - \sqrt{5}$

9. $-3\sqrt{28} + 8\sqrt{3} - \sqrt{300} + 7\sqrt{112}$

10. $4\sqrt{24} - 2\sqrt{80} + 11\sqrt{6} - 3\sqrt{216}$

11. The perimeter of a triangle is $16\sqrt{7}$ feet. If two of the sides measure $\sqrt{343}$ feet and $\sqrt{175}$, find the length of the third side as a radical in simplest form.