

Name: _____

Unit 11: Radicals

Date: _____ Bell: _____

Homework 4: Multiplying Radicals

**** This is a 2-page document! ****

Directions: Find the product. Write your answer in simplest radical form.

1. $4\sqrt{6} \cdot \sqrt{15}$

2. $-8\sqrt{5} \cdot -2\sqrt{5}$

3. $2\sqrt{20} \cdot -4\sqrt{35}$

4. $-\sqrt{42} \cdot 4\sqrt{7}$

5. $\sqrt{8k} \cdot \sqrt{6k}$

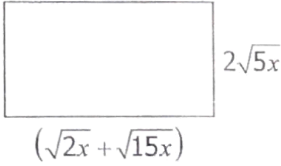
6. $4\sqrt{10n^2} \cdot -3\sqrt{8n}$

7. $\sqrt{14r^2} \cdot \sqrt{6r^7}$

8. $-5\sqrt{2m^6} \cdot 2\sqrt{32m^2}$

9. $5\sqrt{98} - 3\sqrt{6} \cdot 5\sqrt{3}$

10. $\sqrt{8b^2} \cdot \sqrt{6b^2} + 3b^2\sqrt{3}$

| | |
|---|--|
| <p>11. $\sqrt{6}(\sqrt{6} + \sqrt{10})$</p> | <p>12. $\sqrt{30}(\sqrt{3} - \sqrt{12})$</p> |
| <p>13. $4\sqrt{5}(3 + \sqrt{10})$</p> | <p>14. $2\sqrt{6}(5\sqrt{3} + 4)$</p> |
| <p>15. $(2 + \sqrt{3})(8 - \sqrt{3})$</p> | <p>16. $(\sqrt{6} - 4)(2\sqrt{6} + 8)$</p> |
| <p>17. $(1 + 5\sqrt{5})(6 + 2\sqrt{5})$</p> | <p>18. $(3 + \sqrt{7})^2$</p> |
| <p>19. The side length of a square is $(8 - \sqrt{10})$ inches long. Find the area of the square. Write your answer in simplest radical form.</p> | <p>20. Write an expression in simplest radical form to represent the area of the rectangle below.</p> <div style="text-align: center;">  </div> |