

Name : _____ Score : _____

Teacher : _____ Date : _____

Multiplying Radical Expressions

Simplify the Radical Expressions.

1) $-3\sqrt{112} \cdot -6\sqrt{18}$

6) $-\sqrt{27k} \cdot -\sqrt{20k}$

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

7) $-2\sqrt{176} \cdot -7\sqrt{45}$

3) $\sqrt{176d}(-\sqrt{28d^2} + \sqrt{45d^3})$

8) $-4\sqrt{27p}(6\sqrt{112p^2} + 5\sqrt{8p^3})$

4) $(-\sqrt{2} + \sqrt{5})(\sqrt{2} - \sqrt{5})$

9) $-5\sqrt{45}(7\sqrt{48} - 7\sqrt{28})$

5) $(4\sqrt{7} + \sqrt{11})(-3\sqrt{7} + \sqrt{11})$

10) $-\sqrt{99r} \cdot -\sqrt{80r}$

Name : _____ Score : _____

Teacher : _____ Date : _____

Multiplying Radical Expressions

Simplify the Radical Expressions.

1) $-3\sqrt{112} \cdot -6\sqrt{18}$

$$216\sqrt{14}$$

6) $-\sqrt{27k} \cdot -\sqrt{20k}$

$$6k\sqrt{15}$$

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

$$2c^2 + 2c\sqrt{10} + 5$$

7) $-2\sqrt{176} \cdot -7\sqrt{45}$

$$168\sqrt{55}$$

3) $\sqrt{176d}(-\sqrt{28d^2} + \sqrt{45d^3})$

$$-8d\sqrt{77d} + 12d^2\sqrt{55}$$

8) $-4\sqrt{27p}(6\sqrt{112p^2} + 5\sqrt{8p^3})$

$$-288p\sqrt{21p} - 120p^2\sqrt{6}$$

4) $(-\sqrt{2} + \sqrt{5})(\sqrt{2} - \sqrt{5})$

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

9) $-5\sqrt{45}(7\sqrt{48} - 7\sqrt{28})$

$$-420\sqrt{15} + 210\sqrt{35}$$

5) $(4\sqrt{7} + \sqrt{11})(-3\sqrt{7} + \sqrt{11})$

$$-73$$

10) $-\sqrt{99r} \cdot -\sqrt{80r}$

$$12r\sqrt{55}$$