

Name : _____

Score : _____

Teacher : _____

Date : _____

Multiplying Radical Expressions

Simplify the Radical Expressions.

1) $-4\sqrt{48b} \cdot -6\sqrt{18b}$

6) $\sqrt{80k} \left(-5\sqrt{44k^2} + 5\sqrt{27k^3} \right)$

2) $-\sqrt{45} \cdot \sqrt{48}$

7) $\sqrt{48n} \cdot \sqrt{20n}$

3) $4\sqrt{48d} \left(-7\sqrt{20d^2} - \sqrt{18d^3} \right)$

8) $\left(\sqrt{2p^2} - \sqrt{5} \right) \left(\sqrt{2p^2} + \sqrt{5} \right)$

4) $\left(5\sqrt{2} + 7\sqrt{11} \right) \left(4\sqrt{2} + \sqrt{11} \right)$

9) $-3\sqrt{32} \cdot -4\sqrt{45}$

5) $7\sqrt{32} \left(\sqrt{20} - 3\sqrt{63} \right)$

10) $\left(-\sqrt{5} - \sqrt{11} \right) \left(-\sqrt{5} - \sqrt{11} \right)$



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Multiplying Radical Expressions

Simplify the Radical Expressions.

1) $-4\sqrt{48b} \cdot -6\sqrt{18b}$

$$288b\sqrt{6}$$

6) $\sqrt{80k} \left(-5\sqrt{44k^2} + 5\sqrt{27k^3} \right)$

$$-40k\sqrt{55k} + 60k^2\sqrt{15}$$

2) $-\sqrt{45} \cdot \sqrt{48}$

$$-12\sqrt{15}$$

7) $\sqrt{48n} \cdot \sqrt{20n}$

$$8n\sqrt{15}$$

3) $4\sqrt{48d} \left(-7\sqrt{20d^2} - \sqrt{18d^3} \right)$

$$-224d\sqrt{15d} - 48d^2\sqrt{6}$$

8) $\left(\sqrt{2p^2} - \sqrt{5} \right) \left(\sqrt{2p^2} + \sqrt{5} \right)$

$$2p^2 - 5$$

4) $\left(5\sqrt{2} + 7\sqrt{11} \right) \left(4\sqrt{2} + \sqrt{11} \right)$

$$117 + 33\sqrt{22}$$

9) $-3\sqrt{32} \cdot -4\sqrt{45}$

$$144\sqrt{10}$$

5) $7\sqrt{32} \left(\sqrt{20} - 3\sqrt{63} \right)$

$$56\sqrt{10} - 252\sqrt{14}$$

10) $\left(-\sqrt{5} - \sqrt{11} \right) \left(-\sqrt{5} - \sqrt{11} \right)$

$$16 + 2\sqrt{55}$$

