

Mixed Review of Radical Operations

Simplify each of the following expressions completely.

1) $\sqrt{64} =$ _____

2) $-\sqrt{18} =$ _____

3) $\sqrt{32} =$ _____

4) $\sqrt{32m^7n^{11}} =$ _____

5) $\sqrt{20x^{10}y^5} =$ _____

6) $\sqrt{100ab^4} =$ _____

7) $(-4\sqrt{2})(3\sqrt{2}) =$ _____

8) $2\sqrt{5} \times \sqrt{3} =$ _____

9) $(3\sqrt{2}) \times (2\sqrt{3}) =$ _____

10) $\sqrt{15n^2} \cdot \sqrt{10n^3} =$ _____

11) $-3\sqrt{7r^3} \cdot 6\sqrt{7r^2} =$ _____

12) $\sqrt{18a^2} \cdot 4\sqrt{3a^2} =$ _____

13) $-\sqrt{12} + 3\sqrt{3} =$ _____

14) $2\sqrt{6} - 2\sqrt{24} =$ _____

15) $-3\sqrt{18} + 3\sqrt{8} - \sqrt{24} =$ _____