

Multiplying Radical Expressions(if $\sqrt[n]{a}$ and $\sqrt[n]{b}$ are real numbers)

$$\sqrt[n]{a} \cdot \sqrt[n]{b} = \sqrt[n]{ab}$$

Ex: $\sqrt{3} \cdot \sqrt{12}$

Ex: $\sqrt[3]{-16} \cdot \sqrt[3]{4}$

Ex: $\sqrt{-4} \cdot \sqrt{16}$

More Simplifying Radical Expressions

$$\sqrt{72x^5} =$$

$$\sqrt{50a^7} =$$

$$\sqrt[3]{54n^8} =$$

Multiplying Radical Expressions (assume all variables represent positive numbers)

Ex: $\sqrt[3]{25xy^8} \cdot \sqrt[3]{5x^4y^3}$

Ex: $\sqrt{27ab^5} \cdot \sqrt{3a^4b^7}$

Multiplying Binomial Radical Expressions

$$(2 + 4\sqrt{3})(1 - 5\sqrt{3})$$

$$(3 + \sqrt{7})(3 - \sqrt{7})$$