

# Algebra 2

## 5-02B Operations with Radicals

### Using Properties of Radicals

Product Property  $\rightarrow \sqrt[n]{a \cdot b} = \sqrt[n]{a} \cdot \sqrt[n]{b}$

Quotient Property  $\rightarrow \sqrt[n]{\frac{a}{b}} = \frac{\sqrt[n]{a}}{\sqrt[n]{b}}$

$$\sqrt[3]{25} \cdot \sqrt[3]{5}$$

$$\frac{\sqrt[3]{32x}}{\sqrt[3]{4x}}$$

### Adding and Subtracting Roots and Radicals

1. Simplify the \_\_\_\_\_
2. \_\_\_\_\_ like terms

$$5\left(4^{\frac{3}{4}}\right) - 3\left(4^{\frac{3}{4}}\right)$$

$$\sqrt[3]{81} - \sqrt[3]{3}$$

$$2\sqrt[4]{6x^5} + x\sqrt[4]{6x}$$

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