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Module 17 Simplifying Radical Expressions
Lesson 3 Multiplying Radicals



guided
practice

Set 1

- Simplify: $\sqrt[3]{m} \cdot \sqrt[3]{m^2}$ m
- Simplify: $\sqrt[3]{24} \cdot \sqrt[3]{8}$ $4\sqrt[3]{3}$
- Simplify: $\sqrt{6} \cdot \sqrt{18}$ $6\sqrt{3}$
- Simplify: $\sqrt[3]{6} \cdot \sqrt[3]{4}$ $2\sqrt[3]{3}$

Set 2

Assume that the variables in square root expressions represent nonnegative numbers.

- Simplify: $\sqrt{3}(\sqrt{15} - \sqrt{18})$ $3\sqrt{5} - 3\sqrt{6}$
- Simplify: $\sqrt[3]{2}(\sqrt[3]{4} + \sqrt[3]{32})$ 6
- Simplify: $\sqrt{x}(\sqrt{2} - \sqrt{x})$ $\sqrt{2x} - x$
- Simplify: $\sqrt{12}(\sqrt{2} - \sqrt{8})$ $-2\sqrt{6}$

Set 3

- Simplify: $(\sqrt{7} - \sqrt{3})^2$ $10 - 2\sqrt{21}$
- Simplify: $(\sqrt{2} - 5)(\sqrt{2} + 5)$ -23
- Simplify: $(\sqrt{5} + \sqrt{7})(\sqrt{2} - \sqrt{3})$ $\sqrt{10} - \sqrt{15} + \sqrt{14} - \sqrt{21}$
- Simplify: $(\sqrt{6} - \sqrt{2})(\sqrt{6} - \sqrt{2})$ $8 - 4\sqrt{3}$

