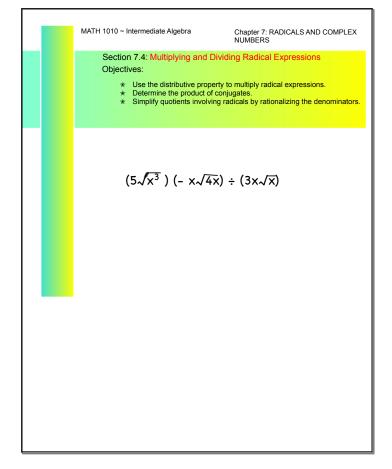
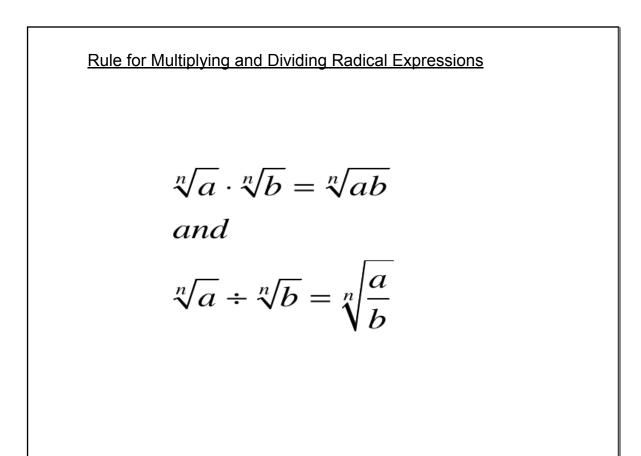
7.4 Multiplying and Dividing Radical Expressions





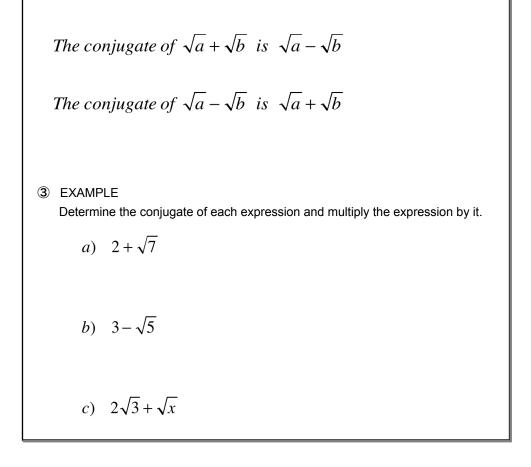
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(1) EXAMPLE
Multiply and simplify.
a)
$$\sqrt{6} \cdot \sqrt{2}$$

b) $\sqrt[3]{6} \cdot \sqrt[3]{16}$
c) $\sqrt{5} (2 + \sqrt{3})$
d) $\sqrt{6} (\sqrt{12} - \sqrt{3})$

(2) EXAMPLE
Perform the indicated operation and simplify the answer.
a)
$$(2\sqrt{7} - 3)(\sqrt{7} + 2)$$

b) $(2 - \sqrt{x})(1 + \sqrt{x})$
c) $(3 - \sqrt{x})(3 + \sqrt{x})$



(a) EXAMPLE
Rationalize the denominators and simplify.
a)
$$\frac{\sqrt{3}}{1-\sqrt{5}}$$

b) $7 \div (x-\sqrt{3})$
c) $\frac{5\sqrt{2}}{3\sqrt{2}+\sqrt{6}}$
d) $\frac{2-\sqrt{3}}{\sqrt{2}+\sqrt{7}}$