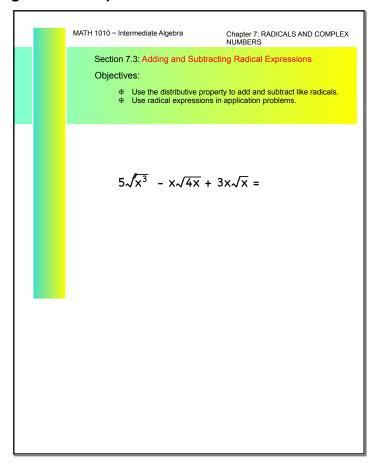
7.3 Adding and Subtracting Radical Expressions



Like radicals can be added or subtracted using their coefficients.

① EXAMPLE

Combine these where possible.

a)
$$5\sqrt{3} - 2\sqrt{3}$$

b)
$$12\sqrt{8} - 3\sqrt[3]{8}$$

c)
$$14\sqrt[5]{2} - 6\sqrt[5]{2}$$

d)
$$5\sqrt{12} + 16\sqrt{27}$$

2 EXAMPLE

Combine these where possible.

a)
$$\sqrt[3]{54x} - \sqrt[3]{2x^4}$$

b)
$$\sqrt{9x-9} - \sqrt{x^3 - x^2}$$

c)
$$6\sqrt{x} - \sqrt[3]{4} - 5\sqrt{x} + 2\sqrt[3]{4}$$

$$d) \quad 5\sqrt{x^3} - x\sqrt{4x}$$

$$f) \quad \frac{8}{\sqrt{5x}} + \sqrt{5x}$$

$$g) \quad \sqrt{\frac{4}{3x^3}} + \sqrt{3x^3}$$

Application:

Four corners are cut from a 4x8 foot sheet of wood. Find the perimeter of the remaining piece of wood.

