

# C11 - 5.2 - Multiplying Radicals HW

Multiply the following radicals

$$7\sqrt{3} \times 2\sqrt{5} =$$

$$2\sqrt{7} \times 3\sqrt{6} =$$

$$10\sqrt{5x} \times 3\sqrt{7} =$$

$$7x\sqrt{3} \times 2x\sqrt{5} =$$

$$10\sqrt{5x} \times 3\sqrt{7} =$$

$$x^3\sqrt{3x} \times x\sqrt{5x^5} =$$

$$3 \times \sqrt{5} =$$

$$\sqrt{5} \times 3 =$$

$$\sqrt{3} \times \sqrt{5} =$$

$$(\sqrt{5})^2 =$$

$$(-4\sqrt{2})^2 =$$

$$(-4\sqrt{(-2)^2})^2 =$$

$$(\sqrt{x-1})^2 =$$

$$(2\sqrt{x-1})^2 =$$

$$(-3\sqrt{x+2})^2 =$$

$$7\sqrt[3]{3} \times 2\sqrt[3]{5} =$$

$$7x\sqrt[3]{3} \times 2x\sqrt[3]{5} =$$

$$\sqrt[3]{7} \times 2 =$$

$$(2\sqrt[3]{x-1})^3 =$$

$$7\sqrt{3} \times 2\sqrt[3]{5} =$$

$$(3\sqrt[3]{2})^2 =$$

# C11 - 5.2 - Multiplying Simplifying Radicals HW

Multiply *the following radicals*

$$7\sqrt{3} \times 2\sqrt{6} =$$

$$2\sqrt{8} \times 3\sqrt{6} =$$

$$10\sqrt{5x} \times 3\sqrt{7x} =$$

$$7x\sqrt{3} \times 2x\sqrt{9} =$$

$$2\sqrt{12x^2} \times 3\sqrt{6x} =$$

$$10\sqrt{14x} \times 3\sqrt{7} =$$

$$(\sqrt{5x})^2 =$$

$$(3x\sqrt{2x})^2 =$$

$$(-4\sqrt{2x^3})^2 =$$

$$7\sqrt[3]{3} \times 2\sqrt[3]{27} =$$

$$7x\sqrt[3]{15} \times 2x\sqrt[3]{5} =$$

$$\sqrt[3]{8} \times 2 =$$

## C11 - 5.2 - Distribute/FOIL Radicals HW

Add or subtract the following radicals

$$\sqrt{2}(\sqrt{5} + \sqrt{3}) =$$

$$2\sqrt{7}(3\sqrt{6} + \sqrt{2}) =$$

$$5(2\sqrt{7} + 4) =$$

$$\sqrt{7}(2 + \sqrt{3x}) =$$

$$\sqrt[3]{7}(2x^2 + \sqrt[3]{3}) =$$

$$\sqrt{5}(6 + \sqrt{5x}) =$$

$$(\sqrt{2} + \sqrt{5})(\sqrt{2} - \sqrt{5})$$

$$(\sqrt{7} + \sqrt{5})(\sqrt{7} - \sqrt{5})$$

$$(\sqrt{2x} + \sqrt{5})(\sqrt{2x} + \sqrt{5})$$

$$(\sqrt{7} + \sqrt{5x})^2$$

$$(\sqrt{2} + \sqrt{7})(\sqrt{3} + \sqrt{5})$$

$$(\sqrt{2} + \sqrt{3})(\sqrt{6} + \sqrt{2})$$

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

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

# C11 - 5.2 - Dividing Radicals HW

Simplify or Divide the following radicals

$$\frac{\sqrt{10}}{\sqrt{5}} =$$

$$\frac{\sqrt{12}}{\sqrt{4}} =$$

$$\frac{\sqrt{1}}{\sqrt{4}} =$$

$$\frac{4\sqrt{6x^2}}{2\sqrt{3x}} =$$

$$\frac{8\sqrt{6x}}{4\sqrt{2x}} =$$

$$\frac{8\sqrt{10}}{3\sqrt{-2}} =$$

$$\frac{2\sqrt{3x}}{4\sqrt{6}} =$$

$$\frac{6x\sqrt{2}}{12x^2\sqrt{6}} =$$

$$\frac{3x^2\sqrt{5}}{7x\sqrt{6}} =$$

$$\frac{8\sqrt{18}}{4\sqrt{2}} =$$

$$\frac{6\sqrt{32}}{3\sqrt{2}} =$$

$$\frac{1\sqrt{45}}{6\sqrt{5}} =$$

$$\frac{6\sqrt{24}}{3\sqrt{3}} =$$

$$\frac{9\sqrt{7}}{\sqrt{63}} =$$

$$\frac{5\sqrt{12}}{6\sqrt{54}} =$$