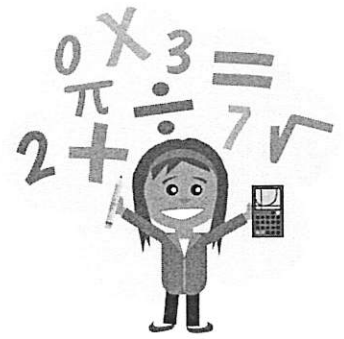# SPIRAL REVIEW QUIZ #1.1

Directions: Show all work in order to receive full credit. A correct answer with no supporting work will only receive one credit. Be sure to show all appropriate formulas and formula substitutions as part of your work.

1. Express your answer in simplest radical form: $\sqrt[3]{54e^7}$

$$\sqrt[3]{27 \cdot 2 \cdot e^6 \cdot e}$$

$$\boxed{3e^2 \sqrt[3]{2e}}$$

2. Determine the <u>sum</u> of $-4x^2 + 5x - 6$ and $3x^2 + 2x - 1$ and write your answer in standard form.

$$+ \quad 3x^2 + 2x - 1$$

$$\boxed{-1x^2 + 7x - 7}$$

3. Express your answer in simplest radical form: $(4 - 2\sqrt{x})^2$

$$(4 - 2\sqrt{x})(4 - 2\sqrt{x})$$

$$16 - 8\sqrt{x}$$
$$\underline{-8\sqrt{x} + 4x}$$

$$\boxed{16 - 16\sqrt{x} + 4x}$$

4. Express the <u>product</u> of $2x - 1$ and $4x^2 + 5x - 6$ in standard form.

$$(2x - 1)(4x^2 + 5x - 6)$$

$$8x^3 + 10x^2 - 12x$$
$$\underline{- 4x^2 - 5x + 6}$$

$$8x^3 + 6x^2 - 17x + 6$$

5. Express your answer in simplest radical form: $b\sqrt{12a^2c^3} - 2ac\sqrt{27b^2c}$

$$2abc\sqrt{3c} - 6abc\sqrt{3c}$$

$$-4abc\sqrt{3c}$$