Name: _____   Date: _____

1. $f(x) = 3x + 5$ $g(x) = x - 3$

    a. $f(x) + g(x)$ b. $g(x) - f(x)$ c. $f(g(-2))$

2. $f(x) = x^2$ $g(x) = x - 1$

    a. $f(x) \cdot g(x)$ b. $g(f(-3))$

3. $f(x) = 3x^3 - 2x$ $g(x) = 2x^2 + 4$

    a. $2f(x) + 3f(x)$ b. $3g(x) - 4f(x)$

4. $f(x) = 2x^3 - 3x^2 + 1$ $g(x) = 2x$

    a. $g(x) \cdot f(x)$ b. $5g(x) - 3f(x)$

5. $f(x) = 3x$ $g(x) = x + 2$

    a. $f(x) \cdot g(x)$ b. $g(g(x))$

Analyze the following polynomials:

1. $f(x) = 5x^2 + 7 - 3x - 9x^3$

standard form:

degree:

leading coefficient:

constant:

Classify (2 names):

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2. $g(x) = 7x^2 - 8x^3$

standard form:

degree:

leading coefficient:

constant:

Classify (2 names):

---

3. $h(x) = 4x^2$

standard form:

degree:

leading coefficient:

constant:

Classify (2 names):

---

4. $m(x) = 9x^2 + 6 - 2.3x$

standard form:

degree:

leading coefficient:

constant:

Classify (2 names):

---

5. $z(x) = 2x^2 - 4 - 3x^4 + 12x^3$

standard form:

degree:

leading coefficient:

constant:

Classify (2 names):