MPM 2D   **Quiz: Polynomials, Expanding & Factoring**

Complete the following quiz on lined paper.

1. Expand and simplify each of the following. Show your steps.

a) $(x + 3)(x + 9)$ b $(x - 2)(x + 2)$ c) $(x - 3)(x - 4)$ d) $(x + 3)(3x + 11)$

e) $2(x - 1)(3x + 2)$ f) $(2x + 3y)(3x + 4y)$ g) $(2x + 1)^2$

2. Factor each of the following polynomials. Show your steps. **Recall:** Look for common factors, first, then proceed with another method!

a) $b^2 + 11b + 30$ b) $a^2 - 4a - 5$ c) $3b^2 + 24b + 45$ d) $14z^2 - 28z$ e) $3qf^3 - 27qf$

3. Answer each of the following:

a) Which of the following IS a polynomial? _____

$4^x + 3$

$-7x^5 - 2x^4 + x$

$2x^2 + \sqrt{x}$

b) What is the degree of the following polynomial? _____

$7x^3 + 5x - 2x^4 + 1 - 3x^2$

c) Arrange the following polynomial in descending order of degree. _____

$7x^3 + 5x - 2x^4 + 1 - 3x^2$

d) In the following polynomial, what is the coefficient of the *linear* term? _____

$5 + 2x - 7x^2$

4. How do you think you did on this quiz? Use a table, like the one below, to organize your thoughts about the topics on this quiz and your learning thus far.

Still learning…	Almost there…	Got It!