Unit 5: Polynomials Day 7

Math 9 Principles

Review 5-1 to 5-5.

1) How many terms are in the following expression? $5x^2 + 6x - 12$

2) How many terms are in the following expression? $-5x^5 + x^4 - 2x + 12$

3) What is the coefficient of the following term? $13x^4$

4) The sum of $16x + 2x$ is

5) The difference of $16x - x$ is

6) Simplify $-13x^2 - 5x^2$.

7) The sum of $6x + 7y$ is

8) The quotient of $\frac{25y^3}{5y^2}$ is

9) Simplify $12x^2 + 3x^2$.

10) Simplify $5x^3 \cdot 2x$.

11) The expression, $10y - 7$, is equal to

12) Simplify $(a + 4) \cdot (a - 3)$.

13) Simplify $(x + 5)(x + 2)$.

14) Simplify $(x - 5)(x + 3)$.

15) Simplify $(y - 4)(y + 7)$.

16) Simplify $\frac{12x^3 - 8x^2}{4x}$.

17) Simplify $(x + 5)(x - 5)$.

Simplify each expression.

18) $(12x + 5) - (5x - 9)$	19) $2x^3 + 3x^2 - 11x^3 - 5x^2$

Expand each and simplify where possible. There should be no brackets in your solution.

20) $5(x - 3)$	21) $3x(2x^2 + 4x - 4)$
22) $(x + 5)(x + 2)$	23) $(x - 6)(x + 2)$
24) $(x - 8)(x - 2)$	25) $(x - 7)(x + 7)$
26) $(3x - 2)(4x + 1)$	27) $(5x - 3)^2$
28) $(2x + y)(3x - y)$	29) $(4x - 5)(2x + 7)$

Find each quotient.

30) $\dfrac{18x-12}{6}$	31) $\dfrac{21x^2-35x}{7x}$
32) $\dfrac{9x^3+12x^2-18x}{12x}$	33) $\dfrac{5a^4+20a^3-15a^2}{5a^2}$

Simplify as fully as possible.

34) $(3x^2 + 6x - 2) - (4x^2 + x - 3)$	35) $\dfrac{18a^4}{10a^8}$
36) $x(x^3 + 3x^2 + 5x)$	37) $\dfrac{14a^{10}}{16a^8}$
38) $(x + 15)(x - 15)$	39) $(3a + 4)(3a - 4)$
40) $\dfrac{15x^3y-20x^2+25x}{5x}$	41) $(z - 3)(z^2 - 5z + 3)$