

Quiz 5.1

April-25-14
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MATH 9	Quiz 5.1 V1	Mr. Singh
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Polynomials

Name: _____

1. Determine the **degree** and **type** (*Monomial, Binomial, Trinomial, or Polynomial*)

Expression	Degree	Type
$3x^4$	4	monomial
$-2p^2 + 3p^3 - p$	3	trinomial
$2x^3 + x^2$	3	binomial
$4a - 2a^4 + a^7 + 1$	7	polynomial

2. Find all pairs of **like terms** in the following list: $2x^3, 3x^2, -5x, 3a^2, -x^2, \frac{1}{2}x^3, 2x, -a^2$

$$2x^3, \frac{1}{2}x^3 \quad -5x, 2x$$

$$3x^2, -x^2 \quad 3a^2, -a^2$$

3. Find the sum, algebraically: $(-2x^2 + 3x - 1) + (3x^2 - 4x + 3) = -2x^2 + 3x - 1 + 3x^2 - 4x + 3$
 $= 1x^2 - 1x + 2$
 $= x^2 - x + 2 //$

4. Subtract, algebraically: $(-2x^2 + 3x - 1) - (3x^2 - 4x + 3) = -2x^2 + 3x - 1 + -3x^2 + 4x - 3$
 $= -5x^2 + 7x - 4 //$

5. Simplify the following subtraction using an *Algebra Tiles Model* only: $(2x - 3) - (-x + 1)$

$$\begin{array}{|c|} \hline \square \square \square \\ \hline \end{array} - \left\{ \begin{array}{|c|} \hline \square \square \\ \hline \end{array} \square \right\}$$

$$\begin{array}{|c|} \hline \square \square \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \end{array}$$

$$\begin{array}{|c|} \hline \square \square \square \\ \hline \end{array} \quad 3x - 4.$$

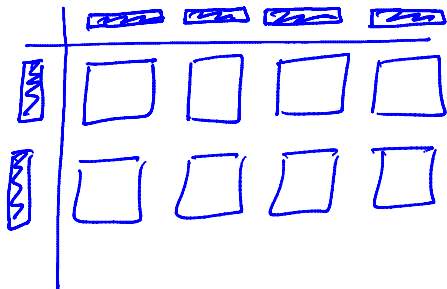
6. Multiply, algebraically:

a. $(-2x)(-4x^2)$
 $8x^3$

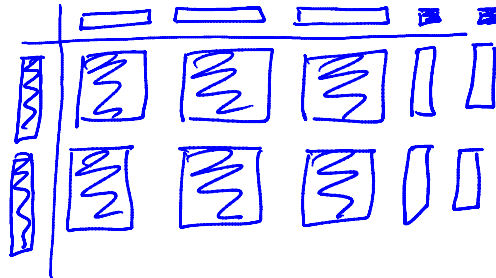
b. $(-2a)(3a^2-2)$
 $-6a^3+4a$

7. Illustrate the following products using an *Algebra Tiles Model*:

a. $(-2x)(-4x^2)$



b. $(-2a)(3a^2-2)$



8. Complete the following *Algebra Tiles Model* of a product and write the product in algebraic form by filling in the brackets:

$(-x+1)(x-2) = -x^2+3x-2$

$(-x+1)(x-2)$ FoIL

