

Polynomials

Name: _____

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

Expression	Degree	Type
$3x^4$		
$-2p^2 + 3p^3 - p$		
$2x^3 + x^2$		
$4a - 2a^4 + a^7 + 1$		

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

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

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

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

6. Multiply, algebraically:

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

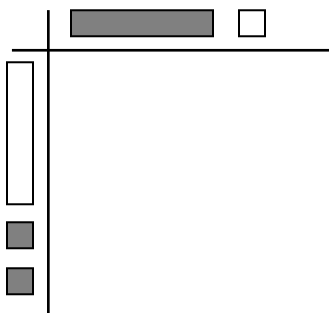
b. $(-2a)(3a^2 - 2)$

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

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

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

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



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