Chapter 5 and 7 - Polynomials

LESSON 3: ADDING AND SUBTRACTING POLYNOMIALS

The opposite of a polynomial is found by taking the opposite of each of its terms

Ex. The opposite of $2x^2 - 5x + 1$ is:

The opposite of $-5x^2 + 2x - 1$ is:

To subtract a polynomial, you must add the opposite terms.

Remember: you can only add or subtract like terms. Use the model to help visualize the process.

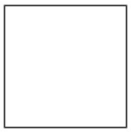
 = positive 1-tile

 = negative 1-tile

 = positive x-tile

 = negative x-tile

 = positive x^2

 = negative x^2

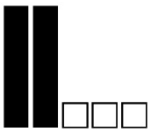
Ex.1: Add the polynomials by collecting like terms.

a) $(2a - 1) + (6 - 4a)$

b) $(3t^2 - 5t) + (t^2 + 2t + 1)$

c) $(7x^2 - 6x + 9) + (-2x^2 + 6x - 5)$

Ex.2: Determine the opposite of the expression represented by each diagram. Express the answer in diagrams and symbols.

a) 

b) 

Ex.3: What is the opposite of each expression?

a) $4w$ b) $5-3w$ c) $7x^2+5x-1$

Ex.4: Subtract the following expression by adding the opposite terms.

a) $(2x-3)-(-x+2)$ b) $(5x^2-x+4)-(2x^2-3x-1)$

Ex.5: Simplify

a) $(2x^2-3x)+(3x^2-x)$ b) $(5x-1)-(3x-3)$

c) $(7a^2+2a-8)-(7a-2+4a^2)$ d) $(-2a+4a^2+7)+(-8a^2+5a-4)$