

ADDING AND SUBTRACTING POLYNOMIALS

# SECTION 10.1

# Like Terms

- ⦿ Like terms have the same **letter** and **exponent** value.
- ⦿ You can only combine (add or subtract) terms that are alike!!!!
- ⦿ Write answers in **descending order** based on the exponent

## Examples

$$1.) -3x + 4x = x$$

$$2.) 4x - 2x = 2x$$

$$3.) x^2 + 5x^2 = 6x^2$$

$$4.) 10x + x^2 + 4x - 5$$
$$x^2 + 14x - 5$$

$$5.) x + 2y + 3x + 5$$

$$4x + 2y + 5$$

## Examples

1.)  $(3x + 4y) + (2x - 7y)$

$$5x - 3y$$

2.)  $(x - 7) - (2x + 4)$

$$(x - 7) + (-2x - 4)$$

$$\boxed{-x - 11}$$

3.)  $(3x^2 - 4x + 6) - (6x^2 + 2x - 6)$

$$(3x^2 - 4x + 6) + (-6x^2 - 2x + 6)$$

$$-3x^2 - 6x + 12$$

# CLASSWORK

$$\textcircled{1} (3x^2 + 3x + 1) + (x^2 + x + 5)$$

$$4x^2 + 4x + 6$$

• Blue Book

• PG 297 # 1-12

• Pg 299 # 1-14

$$\textcircled{1} (k^2 + k + 6) - (4k^2 + 2k + 3)$$

$$\textcircled{2} (3y^2 + 4y + 2) - (y^2 + y + 3)$$

$$(3y^2 + 4y + 2) + (-y^2 - y - 3)$$

$$2y^2 + 3y - 1$$

$$(k^2 + k + 6) + (-4k^2 - 2k - 3)$$

$$-3k^2 - 1k + 3$$

$$\textcircled{3} (3m + 6n) - (5m - n)$$

$$(3m + 6n) + (-5m + n)$$

$$-2m + 7n$$

# HOMEWORK

- PG 579-580 # 13-18, 31-38