

# Chapter 5 - Exponents and Polynomials

## Section 5.1 Adding and Subtracting Polynomials

Add 2 polynomials:

$$\begin{aligned} 18. \quad & (8x - 5) + (-13x + 9) \\ & = \underline{8x} - \underline{5} + \underline{(-13x)} + \underline{9} \\ & = -5x + 4 \end{aligned}$$

$$\begin{aligned} 30. \quad & (7y^3 + 5y - 1) + (2y^2 - 6y + 3) \\ & = \underline{7y^3} + \underline{5y} - \underline{1} + \underline{2y^2} - \underline{6y} + \underline{3} \\ & = 7y^3 + 2y^2 - y + 2 \end{aligned}$$

Look for like terms

Vocabulary: Polynomial (many terms)  $(7y^3 + 5y - 1)$   
3 terms

monomial (one term)

$x$   
 $3x$   
 $7$

binomial (2 terms)

$x^2 + 4$   
 $3x - 1$

trinomial (3 terms)

$x^2 + 4 + 3x$   
 $x^2 + 3x + 4$

descending order of degree

degree  $\rightarrow$  exponent

$$\underline{3x^2} \rightarrow \text{degree of 2}$$

$$4y^{\text{III}} \rightarrow \text{degree III}$$

$$x^1 \rightarrow \text{degree 1}$$

$$4 \rightarrow \text{degree 0 (constant)}$$

$$66. (5y^3 + y^2 - 3y - 8) - (y^2 - 8y + 11)$$

$$= 5y^3 + \cancel{y^2} - 3y - \underline{\underline{8}} - \cancel{y^2} + 8y - \underline{\underline{11}}$$

$$= 5y^3 + 5y - 19$$

Checkpoint 2 (4.2, 4.3, 4.4) on Wednesday