Mathematics9 Date _____

Unit 5 Intro to Polynomials

5.2B Like Terms

Like Terms – Terms that differ only by their coefficients

– same variable(s) with same exponent(s) on the respective variables

Ex. Identify the like terms in each group of terms:

a) $5b^2$ $3ab$ $-2b$ $7c$ $6b$

b) $3x^2$ $4x^2y$ $7x^2$ $-2x^2$ $\frac{1}{2}x$

c) $3p^2q$ -3 $2pq^2$ 1 qp^2

Only like terms can be combined together in a polynomial.

Ex. Simplify (collect like terms):

a) $5x - 3x^2 + 2x - x^2$

$= 7x - 4x^2$

$= -4x^2 + 7x$ ✱ descending order of degree

b) $2x - 6 - 2x + 1$

$= 0x - 5$

$= -5$

c) $4a^3 + 3 - 2a^2 + 5a + a^3 - 1 + 5a^2 - 2a^3$

$= 3a^3 + 3a^2 + 5a + 2$

Practice: WS 5.2B