2.1 Monomials

Refer to first half of the Handout: "Algebraic Expressions", for definitions.

A **MONOMIAL** is the product of a variable with a positive integer exponent and real number.

LIKE TERMS are terms with identical variables and identical exponents (not coefficients)

The **DEGREE** of a monomial is the sum of all its exponents.

1

$$\frac{1}{b^5} \quad \frac{1}{2}y \quad 3x \quad \sqrt{5a} \quad \frac{1}{12a^{\frac{1}{2}}} \quad -22a^5b^7 \quad 2y^{-5}$$

$$7$$

Ex 1: Monomial   Vs   Not a Monomial

2

Ex 2: Are the following pairs like terms?

1) $2a$, $-2a$

2) $4b$, $6ba$

3) $3x$, $-7x^2$

4) abc , $-abc$

5) $3b^0$, 5

6) $6x$, $\frac{4}{x}$

7) $3x^2y$, $4xy^2$

8) $11st^2u^3$, $9u^3t^2s$

9) $\frac{2}{5}$, -8

10) $2a$, $3ab$

11) $3x$, $3x^0$

12) $2ax^2$, ax

13) $2a^2x^3$, $-2a^2x^3$

14) Is $2x^{-1}$ a monomial?

3

Ex 3: Determine the degree of each monomial

Monomial	$5x^2$	$3y^{12}$	-7	$6xy^4$	$3a^3b^3$
Degree					

4

We can use Algi-tiles to represent single variable polynomials: Introducing the Tiles ………..

| +1 | +1 Tile | -1 | -1 Tile |

| X | +x Bar | -x | -x Bar |

| X² | +x² Square | -x² | - x² Square |

Note that 2 opposites of the same type cancel each other out when added.

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Practice:
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