

Unit 2

L 1 Monomial Basics

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

$\frac{1}{b^5}$

$\frac{1}{2}y$

$3x$

7

$\sqrt{5a}$

$12a^{\frac{1}{2}}$

$-22a^5b^7$

$2y^{-5}$

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					

Example $6xy^4$
 $6() ()^4 = ?$
If $x=3$; $y=2$
 $6(3)(2)^4$
 $= 6(3)(16)$
 $= 288$



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

x^2

+x² Square

$-x^2$

- x² Square

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

5

Practice:
2.1 #1-3

