

BE-Algebra I | MONDAY 11-29-10

① Write (from memory) the six exponent rules.

② $(-6)^{-2} = ?$

③ $\left(\frac{1}{10}\right)^{-1} = ?$

④
$$\frac{46x^2y^0}{5x^{-4}}$$

* Flash cards?

* Exam 2 Thurs.

POLYNOMIAL
~
MANY

A MONOMIAL OR A
SUM OF MONOMIALS

EXAMPLES

SPECIAL NAME

$$4x^2y^5z$$

MONOMIAL or POLYNOMIAL

$$2x^5 - 3yz$$

BINOMIAL or POLYNOMIAL

$$3x^4 + 2y - 6$$

TRINOMIAL or POLYNOMIAL

$$5x - 2y + 6z - 8$$

4-term
POLYNOMIAL or POLYNOMIAL

$$5x - 2x + 3y$$

~
/

$$3x + 3y$$

BINOMIAL or POLYNOMIAL

POLYNOMIAL? Yes or No. Why not?
 Does it have A SPECIAL NAME? If so, WHAT?

$$-14$$

Yes, MONOMIAL.

$$2x - 3yz$$

Yes, binomial.

$$8N^3 + 5N^{-2}$$

No, since $5N^{-2} = \frac{5}{N^2}$

AND division by THE
 VARIABLE means $5N^{-2}$ is
NOT A MONOMIAL. ∴

$8N^3 + 5N^{-2}$ IS NOT THE
 SUM OF MONOMIALS.

$$7x + 3x - 4y + 2$$

Yes, trinomial

SINCE $7x + 3x = 10x$
 SO $10x - 4y + 2$!!!

DEGREE OF A MONOMIAL THE SUM OF THE
EXONENTS OF ALL
ITS VARIABLES

(EX)	$4x^2$	3^4xyz^5	5^5
	degree	degree	degree
	2	7	0

DEGREE OF A POLYNOMIAL THE SAME AS THE
DEGREE OF ITS
highest monomial

(EX) $3x^4 + 2xyz + 6b^5$

Degree 5

ascend go up ↗
descend go down ↘

THE NORMAL WAY TO WRITE A POLYNOMIAL TO PUT THE highest degree monomial first, then go in descending order by degree.

Ⓔ $5x + 3y^2 + 8x^5 + 6$

REWRITES: $8x^5 + 3y^2 + 5x + 6$

If asked to put in ascending order by degree, reverse the above list but this would NOT be a normal way of writing the polynomial.

Ch. 8-4, POLYNOMIALS

EX 3 Find the degree of
Pg 433 EACH POLYNOMIAL:

Ⓐ $5mn^2$

Ⓑ $-4x^2y^2 + 3x^2 + 5$

Ⓒ $3a + 7ab - 2a^2b + 16$

Homework: Pg 434-435

15-20

25-33

37, # 45

Challenge Problem: # 24