



Warm-Up

December 7, 2016

Complete the Chart below:

Polynomial	#terms	list terms	degree	constant
a. $3x + 4y^2$	2	$3x, 4y^2$	2	none
b. $3x$	1	$3x$	1	none
c. -3	1	-3	none (0)	-3
d. $3x - 4x^3 - 4$	3	$3x, -4x^3, -4$	3	-4

highest exponent (with arrow pointing to degree column)
a number by itself (with arrow pointing to constant column)

$$-4 - 4x^3 + 3x$$

Classifying polynomials [look at the number of terms]...

Polynomials with 1, 2, or 3 terms have special names.

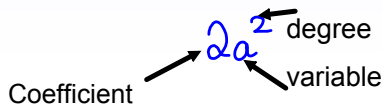
A **monomial** has 1 term, for example: $4a$, 6 , $-2p^2$

A **binomial** has 2 terms, for example: $2c - 5$, $2m^2 + 3m$

A **trinomial** has 3 terms, for example: $2h^2 - 6h + 4$

Coefficient- the numerical value of a term

[found in front of a variable]



Term	Coefficient [s]	degree	variable[s]	constant
a) $-2x + 4y^2$	$-2, 4$	2	x, y	none
b) $-3a^2$	-3	2	a	none
c) $-2xy + 4a^3 + 2$	$-2, 4$	3	xy, a x, y, a	2
d) 6	none	none	none	6

Polynomial	(1)	(2)	Coefficient[s]	Degree	Constant
	Monomial, Binomial or Trinomial?	(3)			
A. $-3x^3$	monomial		-3	3	none
B. $9r - 7$	binomial		9	1	-7
C. $-3y^2 - 4y + 6$	trinomial		-3, -4	2	6

Polynomial	# of Terms	Classify Type <i>Monomial Binomial trinomial</i>	Constant <i>just a number</i>	Degree <i>highest exponent</i>	Coefficient <i>* in front of variable</i>
A. -4	1	monomial	-4	none	none
B. $-2x+3$	2	binomial	3	1	-2
C. $2x-3+4x^2$	3	trinomial	-3	2	2, 4
D. $-6x$	1	monomial	none	1	-6

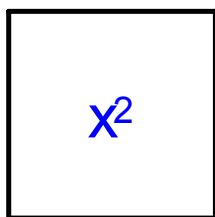
Algebra Tiles Legend

Textbook
 yellow → positive
 red → negative

Unshaded Positive


 constant


 x degree 1

 x^2 degree of 2

Shaded negative

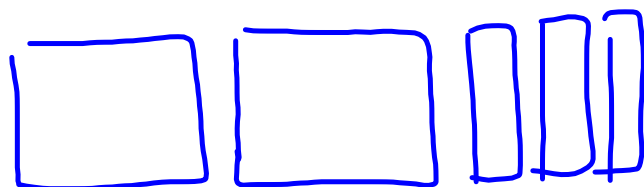
 -1

 $-x$

 $-x^2$

Using algebra tiles model...

$$2m^2 + 3m$$



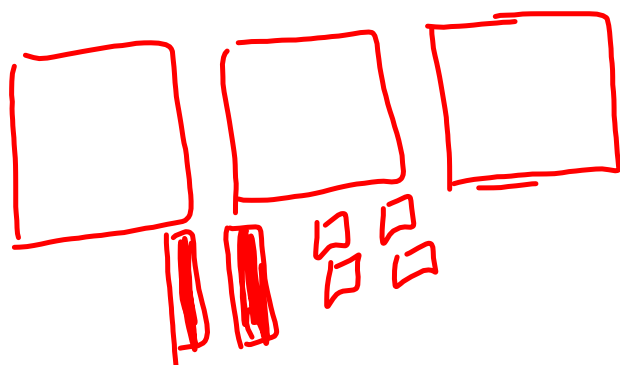
Classify polynomial

Binomial

Degree

2

$$3r^2 - 2r + 4$$



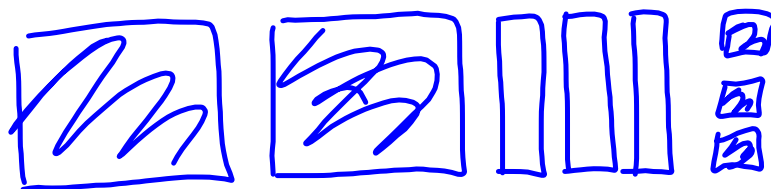
Classify polynomial

trinomial

Degree

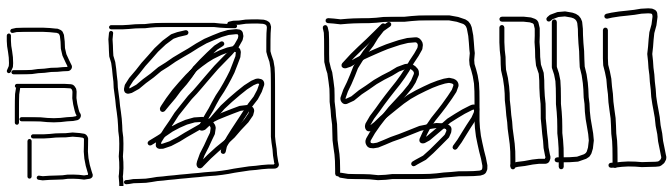
2

$$-2x^2 + 3x - 3$$



Does order Matter ? Show using algebra tiles.

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



b) $3x + 3 - 2x^2$



* Rewrite from highest to lowest degree
 $-2x^2 + 3x + 3$

How are polynomials written???

A **polynomial** is usually written in **descending** order by degree!

Highest \downarrow → lowest

Write in descending order:

$$\begin{array}{l} -2x^3 + 4x - 6x^2 + 4 \\ -2x^3 - 6x^2 + 4x + 4 \end{array}$$