WARM UP - Get out WB pg. 49

Notecatcher for 6.1 Polynomials

Nov 1-12:09 PM

6.1 POLYNOMIALS

MONOMIALS
1 Term

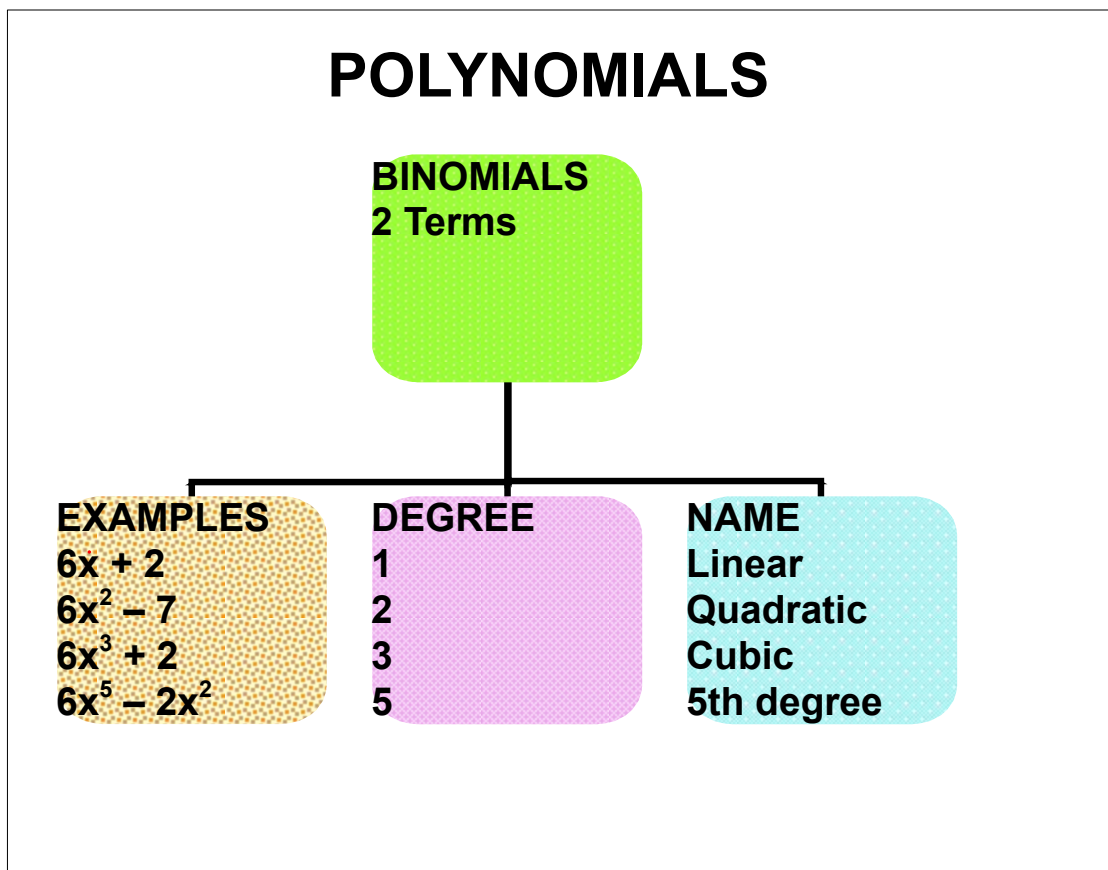| **EXAMPLES**	**DEGREE**	**NAME**
5	0	Constant
-15x	1	Linear
$5x^2$	2	Quadratic
$7x^3$	3	Cubic
12x4	4	Quartic

Nov 16-10:36 AM

POLYNOMIALS

BINOMIALS
2 Terms

EXAMPLES
$6x + 2$
$6x^2 - 7$
$6x^3 + 2$
$6x^5 - 2x^2$

DEGREE
1
2
3
5

NAME
Linear
Quadratic
Cubic
5th degree

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POLYNOMIALS

TRINOMIALS
3 Terms

EXAMPLES
$3x^2 - 2x + 1$
$5x^4 + 2x^3 - 5x$

DEGREE
2
4

NAME
Quadratic
Quartic
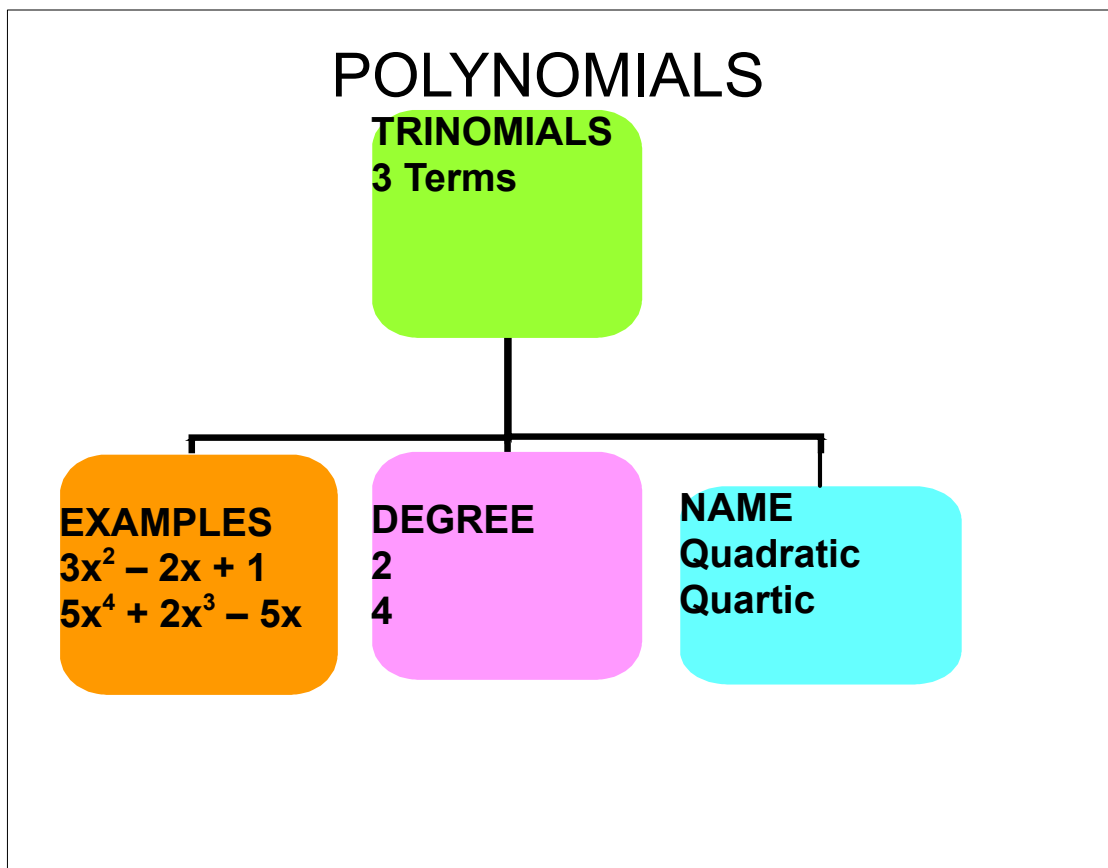
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STANDARD FORM
Degrees of each term are written
from highest to lowest.

Are these examples written in standard form?

✓ $3x^4 + 5x^2 - 7x + 1$

✗ $5 - 2x^3 + 7x$ $-2x^3 + 7x + 5$

↑
Click in front of problem.

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ADDING and SUBTRACTING

You can only add and subtract **LIKE TERMS.**

↓

same variable
and
same exponent

1) $(6x^2 + 3x + 7) + (2x^2 - 6x - 4)$

$8x^2 \quad -3x \quad + \quad 3$

2) $(2x^3 + 4x^2 - 6) - (5x^3 + 2x - 2)$

$2x^3 + 4x^2 - 6 - 5x^3 - 2x + 2$

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

Nov 16-10:36 AM

3) Simplify:

$(x - 3)(x + 2)(2x + 4)$

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

Foil or box the first two binomials to get:

$x^2 - x - 6$

Then foil or box with 2x + 4

	x^2	$- x$	$- 6$
2x	$2x^3$	$-2x^2$	$-12x$
4	$4x^2$	$-4x$	-24

Lastly, combine like terms to get final answer:

$2x^3 + 2x^2 - 16x - 24$

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Beat Conifer!

HW 6.1
p. 309 #1-9 odd,
33-51 multiples of 3,
#62-65

Nov 16-10:36 AM

EXTRA SLIDE

Nov 8-9:38 AM

✔ FOR UNDERSTANDING

Write in standard form. Then classify by the degree and the number of terms. Slide the descriptions to match the problem

Problem	Degree	Type of Polynomial
1) $(4x^2 - 2x + 13) - (9x^2 - 6)$		
2) $(5x - 1)^2 + 4x^3 - (25x^2 + 1)$		
3) $-x^2 + 7x + x^2$		
4) $(x - 3)(x + 2)(3x - 1)$		

Monomial

Binomial

Trinomial

Linear

Quadratic

Cubic

Jul 6-3:16 AM