



## Warm Up

Copy warm-ups into your notebooks



- 1) Classify the following polynomials as either monomials, binomial or trinomial

Monomial  $9x^2y$

$v + 2t$  binomial

Monomial 11

$n$  monomial

Trinomial  $k - 7 + b$

$3 + g^{10}$  binomial

15

- 2) What is the degree of the following polynomial?

$$8x^5 - 6 + 10x^1 - \cancel{9x^{15}} + 10x^{14}$$

- 3) Rewrite the above in descending order

$$-9x^{15} + 10x^{14} + 8x^5 + 10x^1 - 6$$

- 4) Fill in the following chart:

Expression	Variable	Coefficient	Constant	Degree
$2x - 8$	X	2	-8	1
$5x^4 + 7y - 2$	X, y	5; 7	-2	4
12			12	0



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- 1) Classify the following polynomials as either monomials, binomial or trinomial

M       $9x^2y$

M      11

T       $k - 7 + b$

B       $v + 2t$

M      n

B       $3 + g^{10}$

- 2) What is the degree of the following polynomial?

$$8x^5 - 6 + 10x - 9x^{15} + 10x^{14}$$

- 3) Rewrite the above in descending order

$$-9x^{15} + 10x^{14} + 8x^5 + 10x - 6$$

- 4) Fill in the following chart:

Expression	Variable	Coefficient	Constant	Degree
$2x - 8$	x	2	-8	1
$5x^4 + 7y - 2$	x, y	5, 7	-2	4
12	6	0	12	0

# Modelling Polynomials

$3x+4$

$2x^2 - 4x + 2$

$-x^2 - x$

$x^2 + x$

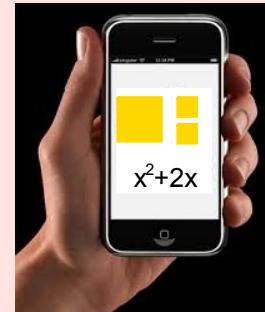
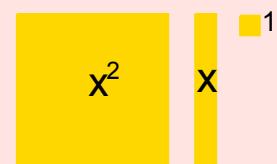
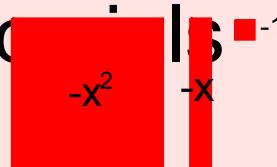
$x^2 + 2x$

# Modelling Polynomials

Write the algebraic expression that represents each model.

Don't forget to write it properly!

$$\begin{array}{c}
 \text{1} \\
 \boxed{-x^2} \quad \boxed{x} \quad \boxed{-x} \quad \boxed{+1} \\
 -x^2 + bx - 2 \quad 2x^2 - 3x + 6 \\
 \hline
 -x^2 + 6x - 2
 \end{array}$$



# One More Time Modelling Polynomials

Write the algebraic expression that represents each model.

Don't forget to write it properly!

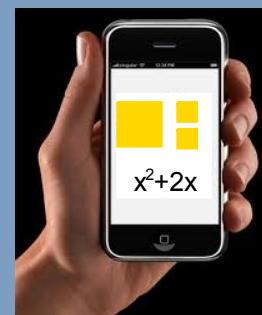
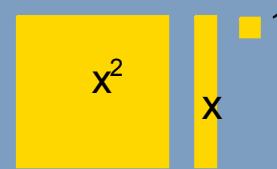
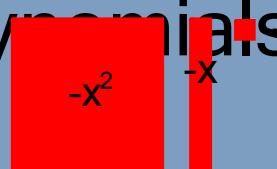
$$x - 1 - x - x + / \tau n /$$

$$x^2 - 1$$

$$x^2 + x + 1$$

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

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



# Modelling Polynomials

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

$x^2 - x + 1$

$x^2 + 2x$

The slide illustrates polynomial modeling using algebra tiles. It shows three separate polynomials:  $-5x^2 + 2x - 3$ ,  $x^2 - x + 1$ , and  $x^2 + 2x$ . Each polynomial is represented by a set of tiles: red squares for  $x^2$ , yellow rectangles for  $x$ , and small red squares for  $-1$ . A hand holding a smartphone at the bottom right displays the tiles for  $x^2 + 2x$ .

# Terms with polynomials

**Remember:**

**Monomial:** one term

**Binomial:** two terms

**Trinomials:** three terms

**Variables:** Letters

**Coefficients:** Numbers out in front of letters

**Constant:** the number all by itself

**Degree:** the highest exponent on a variable

# Class/ Homework



*Check out pages 214 - 216*

8 (hint write all in descending order)

9 (set up a chart)

10

11 abc

12 (Sketch the tiles and put expression beside it )

13 adeh (Sketch the tiles and put expression beside it )

14 ac

Page 214

Questions: 4 to 7