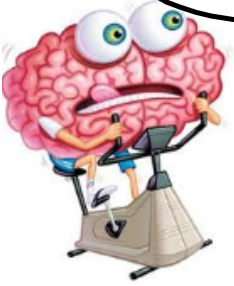
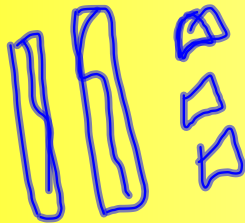


Warm-Up
February 3



Classify

Polynomial	# of Terms	Type	Constant	Degree
A. -4	1	monomial	-4	0
B. $-2x+3$	2	binomial	3	1
C. $2x-3+4x^2$	3	trinomial	-3	2
D. $-6x$	1	monomial	0	1



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

Any homework questions?



4. Which of the following expressions are polynomials? Explain how you know.

- a) $2 + 3n$ b) $3\sqrt{x}$ X
c) $-5m + 1 + 2m^2$ d) 7
e) $\frac{1}{x^2} + \frac{1}{x} + 1$ X f) $\frac{1}{2}s$

5. Is each expression a monomial, binomial, or trinomial? Explain how you know.

- a) $3t + 4t^2 - 2$ b) $5 - 3g$ $\frac{4}{2}$ S
c) $9k$ d) 11

6. Name the coefficient, variable, and degree of each monomial.

- a) $-7x$ b) $14a^2$
c) m d) 12

7. Identify the degree of each polynomial.

Justify your answers.

- a) $7j^2 + 4$ b) $9x$
c) $2 - 5p + p^2$ d) -10

4. Parts a, c, d, and f are polynomials. The terms in the polynomial are of degree 1, 2, or a constant. Part b is not a polynomial because it involves taking the square root of a variable, and part e is not a polynomial because it contains a variable in the denominator.

5. a) Trinomial; it has three terms of different degrees.

b) Binomial; it has two terms of different degrees.

c) Monomial: it has only one term of degree 1.

d) Monomial: it has only one term of degree 0.

6. a) Coefficient -7 , variable x , degree 1

b) Coefficient 14, variable a , degree 2

c) Coefficient 1, variable m , degree 1

d) No coefficient; no variable; degree: 0

7. a) Degree 2, has a j^2 term

b) Degree 1, has an x term

c) Degree 2, has a p^2 term

d) Degree 0, this polynomial does not have a variable, so there is no exponent.

8. Identify the polynomials that can be represented by the same set of algebra tiles.

- a) $x^2 + 3x - 4$
- b) $-3 + 4m - n^2$
- c) $4m - 3 + m^2$
- d) $-4 + r^2 + 3r$
- e) $-3m^2 + 4m - 3$
- f) $-h^2 - 3 + 4h$

8. a and d, b and f

9. Name the coefficients, variable, and degree of each polynomial. Identify the constant term if there is one.

- a) $5x^2 - 6x + 2$
- b) $7b - 8$
- c) $12c^2 + 2$
- d) $12m$
- e) 18
- f) $3 + 5x^2 - 8x$

- 9. a) Coefficients 5, -6, variable x , degree 2, constant term 2
- b) Coefficient 7, variable b , degree 1, constant term -8
- c) Coefficient 12, variable c , degree 2, constant term 2
- d) Coefficient 12, variable m , degree 1, no constant term
- e) No coefficients, no variable, degree 0, constant term 18
- f) Coefficients 5, -8, variable x , degree 2, constant term 3







$$-n^2 + 4n - 3$$

$$m^2 + 4m - 3$$

11. Use algebra tiles to model each polynomial. Sketch the tiles.

- a) $4x - 3$
- b) $-3n - 1$
- c) $2m^2 + m + 2$
- d) $-7y$
- e) $-d^2 - 4$
- f) 3

10. A polynomial is one term or the sum or difference of terms whose variables have whole-number exponents. A monomial is a polynomial with only one term. Both students are correct.

- 11. a) 
- b) 
- c) 
- d) 
- e) 
- f) 

12. Match each polynomial with its corresponding algebra tile model.

- a) $r^2 - r + 3$
- b) $-t^2 - 3$
- c) $-2v$
- d) $2w + 2$
- e) $2s^2 - 2s + 1$

- 12. a) Model B
- c) Model E
- e) Model C

- b) Model D
- d) Model A

Model A



Model B



Model C



Model D



Model E



Rewrite in descending order

$$3r - 2r^2 - 3$$

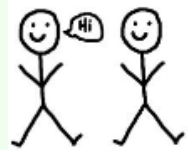
$$-2r^2 + 3r - 3$$

Model



Section 5.2

Like and Unlike Terms



Sketch it into your scribbler

yellow = positive



Write the expression for the polynomial.

$$2r^2 - 1r^2 - 2r + 4$$

$$r^2 - 2r + 4 \leftarrow \text{Simplified Expression!}$$



$$x = 2$$

$$4x = 8$$

$$x^2 = 4$$

Like terms

Terms that can be represented by algebra tiles of the same **size** and **shape**

Like terms

- Group
- Simplify

unlike terms

- Cannot be group
- Cannot be simplified



Simplifying Polynomials

To Simplify Polynomials you must first group the like terms!!!

$$4x^2 - 7x + 1 - 7x^2 + 2x + 3$$

Group $4x^2 - 7x^2 - 7x + 2x + 1 + 3$

Simplify $-3x^2 - 5x + 4$ trinomial

$$4n^2 - 1 - 3n - 3 + 5n - 2n^2$$

Group $4n^2 - 2n^2 - 3n + 5n$ $-1 - 3$

Simplify $2n^2 + 2n - 4$

$$14x^2 - 11 + 30x + 3 + 15x - 25x^2$$

Group $14x^2 - 25x^2 + 30x + 15x - 11 + 3$

Simplify $-11x^2 + 45x - 8$

Do your
Homework!

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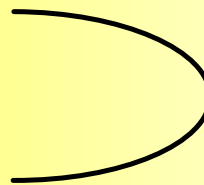
6,7

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11 a, c, e

12 a, c, e

13 a, c, e



**Group like
terms first
then simplify**

+

