How many terms?

a) $3x^4 - 6x^2 - 2$ 3

b) $2x - 3$ 2

c) $-2x^2$ 1

d) 4 1

What is the coeffient

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

b) $2m = 2$

c) 15 no coefficient

The term with the greatest exponent determines the **degree** of the polynomial. This polynomial has degree 2.

$3x^2 - 2x + 5$

The term 5 is a **constant term**. Its value does not change when the value of x changes. A constant term has degree 0.

The term $-2x$ has degree 1 because $-2x = -2x^1$.

What is the degree of the polynomial?

a) $-3x^4 \rightarrow 4$

b) $-2x^2+3x-4 \rightarrow 2$

c) $2x^2+4x^4-6$ 4

$3x-2x^2-4$

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: $2h^2 - 6h + 4$

******An algebraic expression that contains a term with a variable in the denominator, such as 3/n, or the square root of a variable, such as $\sqrt{n}$, is not a polynomial.******

Using algebra tiles model...

$2m^2 + 3m$

Classify polynomial

binomial

Degree 2

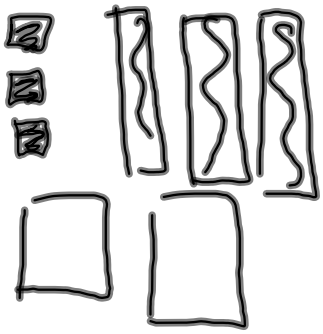
Model $3r^2 - 2r + 4$

Trinomial

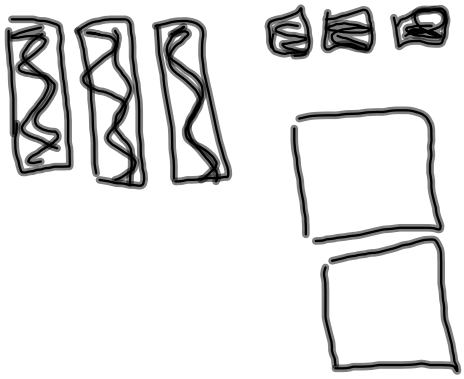
degree 2

Does order Matter ?

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; that is the exponents of the variable decrease from left to right; for example, the polynomial $2k - 4k^2 + 7$ is written as $-4k^2 + 2k + 7$

Order o

Which of these polynomials can be represented by the same algebra tiles?

a) $3x^2 - 5x + 6$ b) $-5 + 6r + 3r^2$ c) $-5m + 6 + 3m^2$

$3r^2 + 6r - 5$ $3m^2 - 5m + 6$

Use algebra tiles to model each polynomial.

Is the polynomial a monomial, binomial, or trinomial? Explain.

a) $-2x^2$

b) $2b^2 - b + 4$

c) $5a - 3$

What is the degree?

Which Polynomials are equivalent?

* Equivalent polynomials -have the same degree and same terms.

a) Which polynomial does each group of algebra tiles represent?

Model A

Model B

Model C

yellow -> positive
red -> negative

But I know I have to do it...

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4,5,6,7,8,
9 a,c,e
11 a, c, e *
12
13 a,c,e