

Polynomial Definitions - Refresher

Monomial - "ONE Term" - consisting of a *constant*, an unknown, or a constant and unknown multiplied together

- ie. 5
ie. $9x$
ie. $-12x^2$

Binomial - "Two Terms" - consisting of a constant and an unknown, or two unknowns separated by the addition or subtraction operation

- ie. $x + 5$
ie. $7x - 16$
ie. $-12x^2 + 7x$

Trinomial - "Three Terms" - consisting of a constants and unknowns separated by the addition or subtraction operation

- ie. $x^2 - 6x + 5$
ie. $-12x^2 + 7x - 1$

Finding the Number of Terms in a Polynomial

State the number of terms in each polynomial.

- a) $5k - 3$
b) $7m^2$
c) $10x^2 - 6x + 1$
d) $7a^3 - 7a^2 + a + 1$

Mar 30-9:23 AM

Nov 1-2:14 PM

Algebra Review

- 1) Like terms. have the same variable and the same exponent.

$6x$ and $-3x$ are like terms

$4x$ and $4x^2$ are not like terms.

Like Terms can be grouped together.

Collecting Like Terms

Add or subtract like terms

- a) $3x + 2x + 2 - 3$
b) $4x^2 - 8x + 2 - 7x^2 + 4x + 3$
c) $5x^2 - 6x + 2 - 4x + 3$
d) $3a + 4b + 5c + 3d - 2a$

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Substituting and Evaluating

Evaluate $x^2 - 5x + 3$ when:

a) $x = 2$

b) $x = -1$

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Collecting Like Terms Practice

1. Simplify each of the following using algebra:

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

(b) $3x + 4 + 2x + 1$

(c) $2x + 5 - 2x - 3$

(d) $5x^2 - 8 - 3x^2 - 8x + 2$

(g) $12a - 15b + 22a - 16b - 2a - 6b$

(h) $2a - 21a + 32b - 6b - 12b - 16a$

Action Page 1

Collecting Like Terms with Brackets

$(x^2 - x) + (8x - 2x^2)$

$(6a - 3a^2) + (2a^2 - 3a)$

$(8a - 4a^2) - (7a^3 - a)$

$(8n^2 - 2n^3) + (6n^3 - 8n^2)$

$(14 + 12a^3) + (17a^4 + 15 - 5a^3)$

$(10p^4 + 11) - (11p^4 + 13 + 16p^2)$

Nov 3-11:05 AM

Distributive Property Practice

1. Simplify.

(a) $2(3x + 5)$

(b) $x(7x + 2)$

(c) $3x^2 - x(x - 4)$

(d) $4(2x - 3) - 3(x + 5)$

Action Page 2

Multiplying Polynomials

$$7(-5v - 8)$$

$$6v(2v + 3)$$

$$4(v + 1)$$

$$2x(-2x - 3)$$

Nov 4-2:15 PM