Warm Up

Please copy and complete

Simplify each of the following:

1) $2x^3 - 5x + 7 + 6x^3 + x + 1$

$$8x^3 - 4x + 8$$

2) $-7n^3y - 5n^2y^3 + 2ny^2 - n^2y^3 - n^3y - 12ny^2$

$$-8n^3y - 6n^2y^3 - 10ny^2$$

Warm Up

Please copy and complete

Simplify each of the following:

1) $2x^3 - 5x + 7 + 6x^3 + x + 1$

$$8x^3 - 4x + 8$$

2) $-7n^3y - 5n^2y^3 + 2ny^2 - n^2y^3 - n^3y - 12ny$

$$-8n^3y - 6n^2y^3 + 2ny^2 - 12ny$$
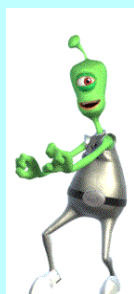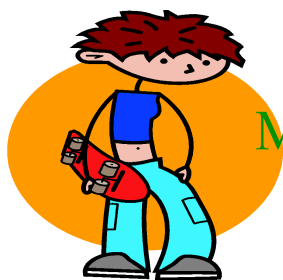
Extended

Multiplying Polynomials

Distributing Factor

Expand & Simplify

Rainbow

Skittles
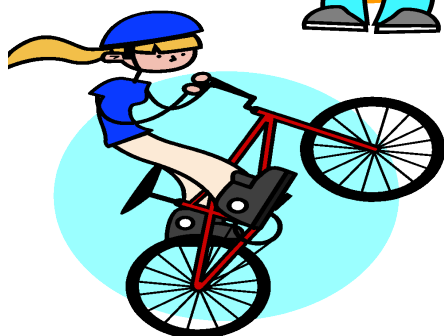
Monomial   _ONE_ term

Binomial   _TWO_ terms

Trinomial   THREE terms

How are terms separated?????

Terms are separated by "+" and "-" signs.

How many terms?

$4x - 5y + q$ 3

$5(x - 3y)$ 2 $5x - 15y$

$\dfrac{3x - 4}{5}$ 2

$\dfrac{3}{5}x - \dfrac{4}{5}$

Bonus:

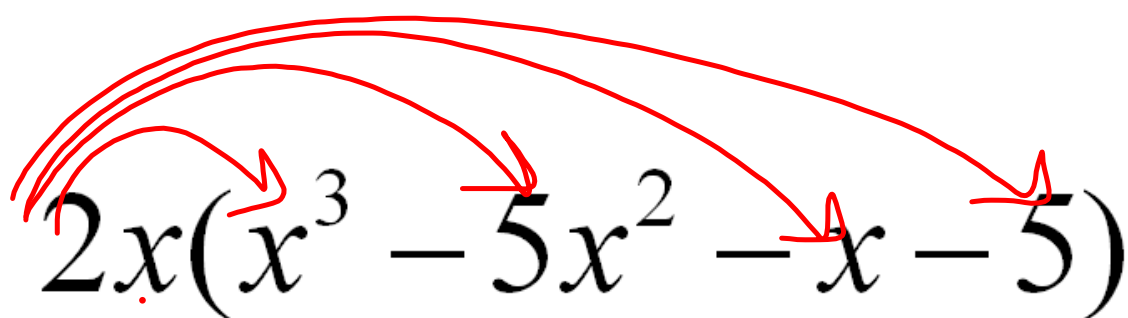How many terms?

$$3x+4y-5x-2y+x$$

$$2$$

$$^-x-2y$$

Expand and collect like terms.

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

$$4x - 8 - 2x - 6$$

$$2x - 14$$

$$2x(x^3 - 5x^2 - x - 5)$$
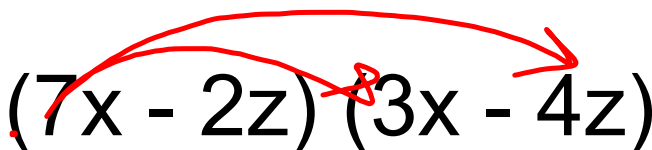
$$2x^4 - 10x^3 - 2x^2 - 10x$$

$$4(3xy + 7x - 5) - 3(2x + 5xy - 1)$$

$$12xy + 28x - 20 - 6x - 15xy + 3$$

$$-3xy + 22x - 17$$

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

$$-8x^2 + 6x + 20x - 15$$

$$-8x^2 + 26x - 15$$

$$(7x - 2z)(3x - 4z)$$

$$21x^2 - 28xz - 6xz + 8z^2$$

$$21x^2 - 34xz + 8z^2$$

15. Expand and simplify.

a) $(3s + 5)(2s + 2) + (3s + 7)(s + 6)$

$$\left(6s^2 + 6s + 10s + 10\right) + \left(3s^2 + 18s + 7s + 42\right)$$

$$(9s^2 + 41s + 52)$$

b) $(2x + 3)(5x + 4) + (x - 4)(3x - 7)$

$$(13x^2 + 4x + 40)$$

3.7 Multiplying Polynomials