Warm Up

Please copy and complete

Simplify each of the following:

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

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

Warm Up

Please copy and complete

Simplify each of the following:

1) [redacted]

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

$8x^3 - 4x + 8$

2) [redacted]

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

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

Warm Up

Please copy and complete

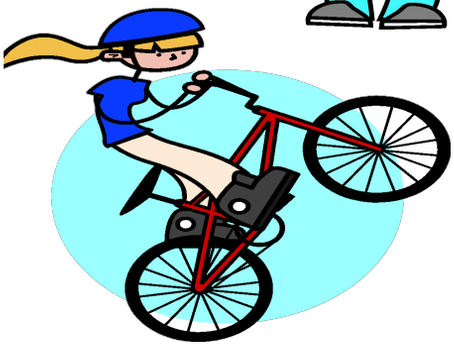
Simplify each of the following:

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

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

Extended

Monomial ONE term



Binomial TWO terms

Trinomial THREE terms

How are terms separated?????

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

mono $3x$

$-4y$

bi $3x + 4$

$-2y - 6$

Tri $4x^2 + 2x - 7$

How many terms

$4x-5y+q$ 3

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

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

$\frac{3}{x}+5$ Not Poly

Same $\begin{cases} x^{1/2}-5 \\ \sqrt{x}-5 \end{cases}$ Not Poly

$(5x^2)(6x^3)$

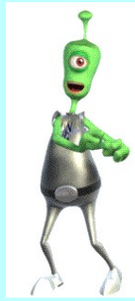
$30x^5$

Distributing Factors

Multiplying Polynomials

Expand & Simplify

Rainbow



Bonus:

How many terms? 2

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

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

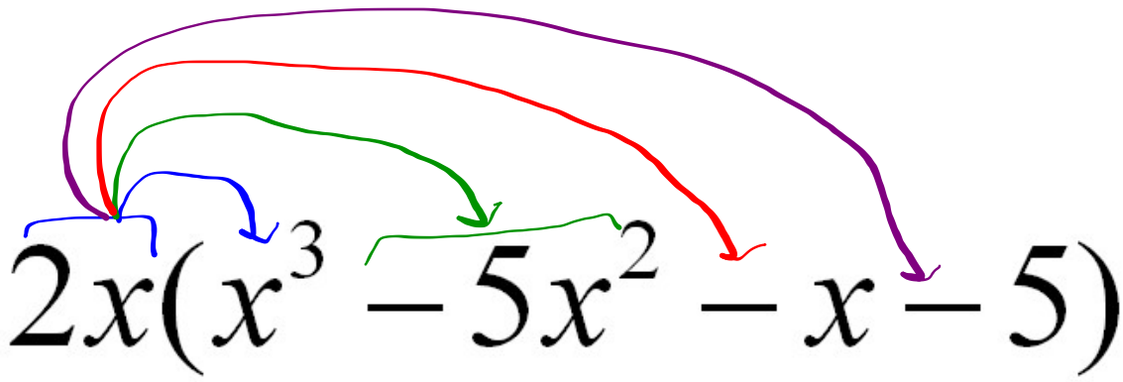
$-x+2y$

Expand and collect like terms.

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

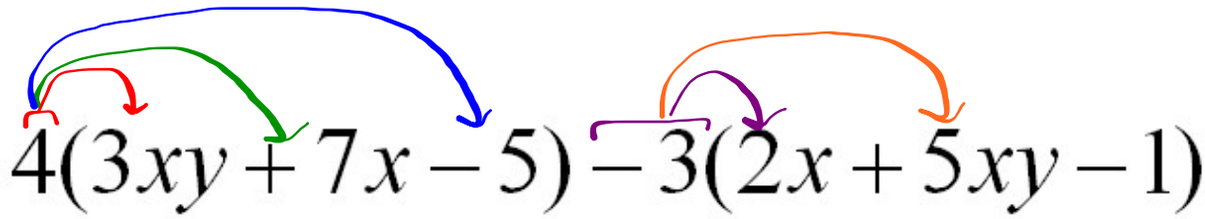
$4x - 2x \quad -8 - 6$

$2x - 14$



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

$$2x^4 - 10x^3 - 2x^2 - 10x$$

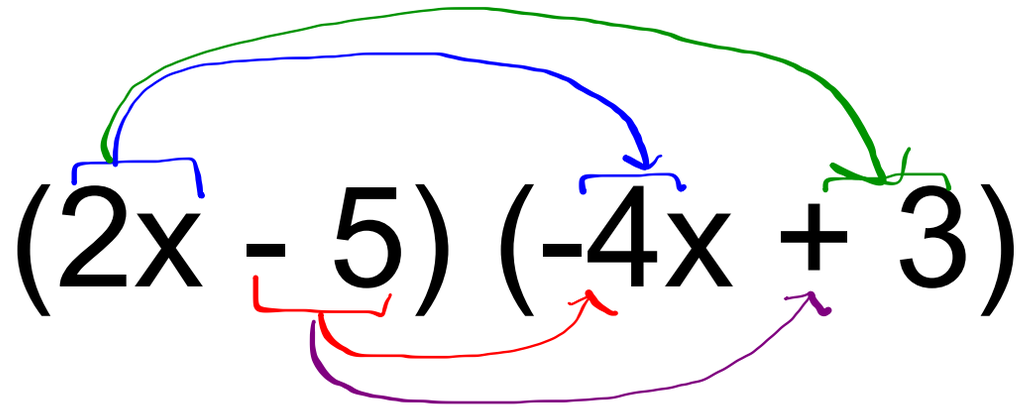


$$4(3xy+7x-5)-3(2x+5xy-1)$$

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

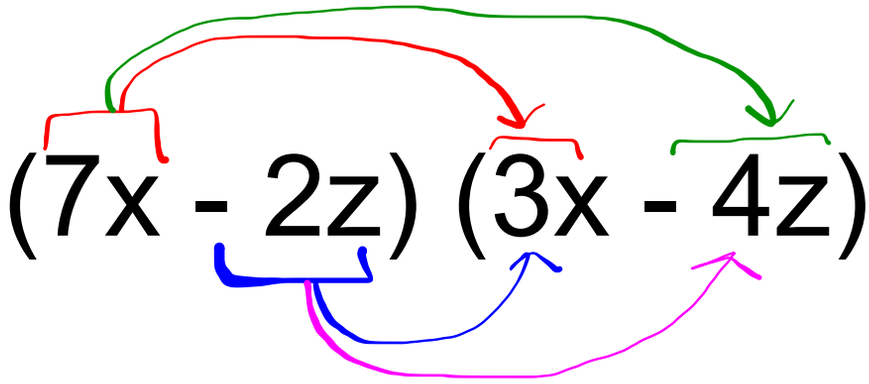
$12xy - 15xy + 28x - 6x - 20 + 3$

$-3xy + 22x - 17$



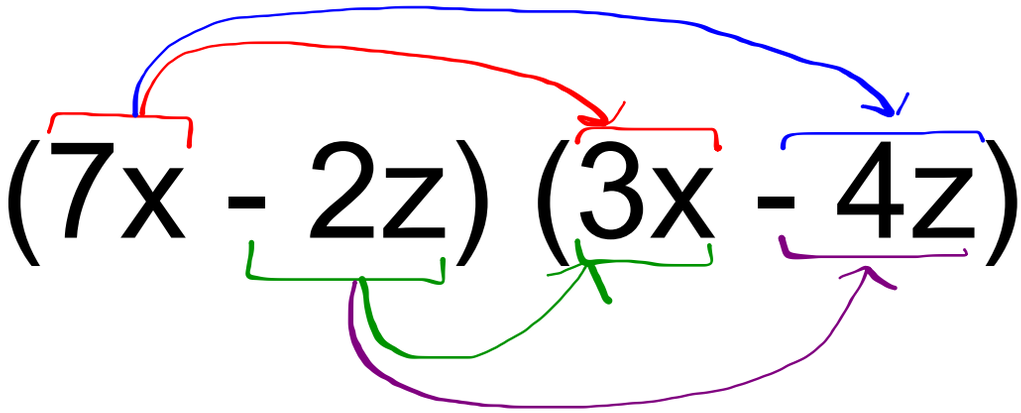
$-8x^2 + 6x + 20x - 15$

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



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

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



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

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

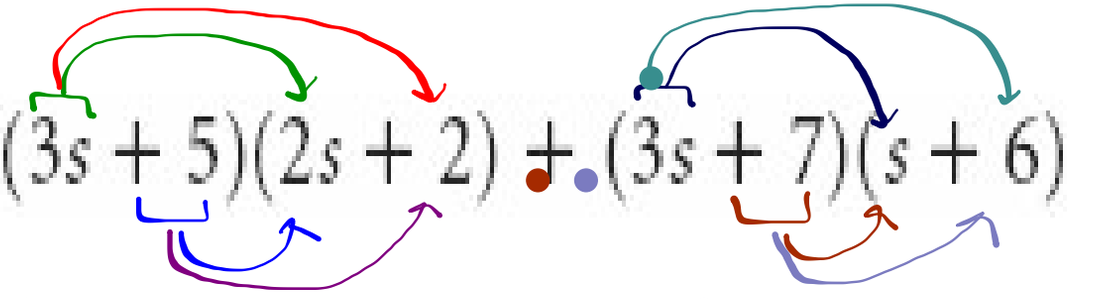
15. Expand and simplify.

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

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

3.7 Multiplying Polynomials

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



$6s^2+6s+10s+10 \quad +3s^2+18s+7s+42$

$6s^2+16s+10 \quad +3s^2+25s+42$

$6s^2+3s^2 \quad +16s+25s \quad +10+42$

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

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

$(10x^2 + 8x + 15x + 12) - (3x^2 - 7x - 12x + 28)$

$(10x^2 + 23x + 12) - (3x^2 - 19x + 28)$

$-3x^2 + 19x - 28$

$10x^2 - 3x^2 + 23x + 19x + 12 - 28$

$7x^2 + 42x - 16$