

# Combining Like Terms

Vocab:

like terms: Terms with the same variables, raised to the same power

like terms:  $4x$  and  $-10x$  •  $15xy$  and  $17xy$

•  $-2x^2y$  and  $7x^2y$  •  $-9xy^3$  and  $13xy^3$

~ adding a negative is the same as subtracting.

~ every # should have one sign in front

Ex: •  $4 + (-9) = 4 - 9$

•  $5a + (-4) = 5a - 4$

You can combine like terms by adding the numerical coefficients

1.  $\boxed{5x} + \boxed{9x} - \boxed{12x}$

$14x - 12x$

$\boxed{2x}$

2.  $\boxed{14x} + 9\boxed{+2x} = 14x + 6x + 9$

$\boxed{20x + 9}$

Variables and exponents

stay the same

3.  $\boxed{9a^2} - \boxed{bab} - \boxed{11a^2} + \boxed{10ab}$

$9a^2 - 11a^2 - bab + 10ab$

$\boxed{-2a^2 + 4ab}$

4.  $\boxed{-4a} + \boxed{7} - \boxed{3a} - \boxed{4} + \boxed{2a} + \boxed{b}$

$-4a + 2a - 3a + 7 - 4 + b$

$\boxed{-4a - 2b + 3}$

1.  $\boxed{-6x} + \boxed{7x} + \boxed{13x}$

$-6x + 7x + 13x$

$8x + 13x$

$\boxed{14x}$

2.  $\boxed{5x^2} - \boxed{9} - \boxed{7x^2} + \boxed{16}$

$5x^2 - 7x^2 - 9 + 16$

$\boxed{-2x^2 + 7}$