Combing Like Terms

Constant: a number by itself

Ex: 3, 47, -10, ¾

Coefficient: a number in front of a variable (being multiplied by a variable)

Ex: 2x, -5w, ½ k (The coefficients are 2, -5 and ½)

Variable: a letter that represents an unknown number

Ex: x, q, w

Exponent: the number "on top" of the variable, also known as the power

Ex: x^3 r^4 (The exponents are 3 and 4)

Simplify: rewrite an expression as simply as possible (lowest terms).

Ex: 5 + 3 simplified is 8

Like Terms: terms with the same variable and exponent.

Ex: 3x and 2x are like terms
4 and -10 are like terms
x^3, $6x^3$ and $-8x^3$ are all like terms

Circle the like terms to x:

-3, -3x, 7x, 8y, -11xy $9x^2$, 9x, -14

Circle the like terms to -6:

-3, -3x, 7x, 8y, -11xy $9x^2$, 9x, -14

Circle the like terms to $19x^2$:

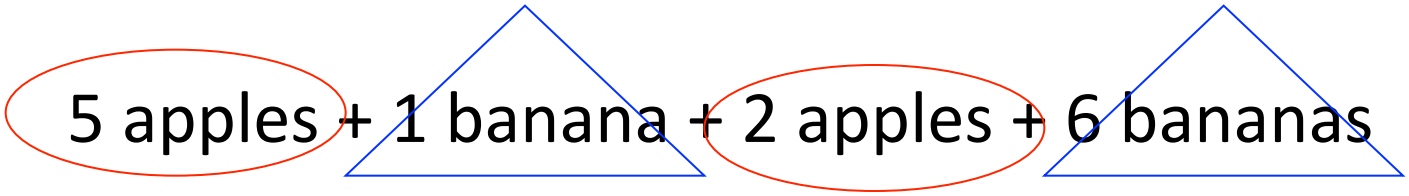
-3, -3x, 7x, 8y, -11xy $9x^2$, 9x, -14

Step 1: Organize your terms.

- Draw **shapes** around like terms.
- Or, **circle/underline** like terms using the same **color**.

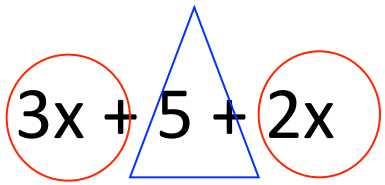
Step 2: Combine the **coefficients** of the like terms. Keep the **variable** and **exponent** the same.

Ex 1: 5 apples + 1 banana + 2 apples + 6 bananas

Step 1: 

Step 2: 7 apples + 7 bananas

Ex 2: $3x + 5 + 2x$ x x x + 5 + x x



$3x + 5 + 2x = 5x + 5$

Ex 3: $9 + 8x + 5x + 1$

Ex 4: $10w + 4 + 2w + x + 8x$

Ex 5: $4r + (-5s) + (-3) + (-2r) + 14 + 7s$

Ex 6: $3x + 2x^2 + 4x + 2x^2 + 1$