

Collecting Like Terms

- Terms that have the same variable parts are called like terms.

→ $3x$, $4x$ and $-6x$ are like terms

→ $5x$, $2x^2$, $3y$ and 4 are NOT like terms

- Like terms can be combined. Since $2x$ means $x+x$ and $3x$ means $x+x+x$, then:

$$\begin{aligned} 2x + 3x &= x + x + x + x + x \\ &= 5x \end{aligned}$$

Steps to collect like terms:

- ① Identify like terms
- ② Re-write with like terms together *OPTIONAL*
- ③ Simplify (ADD the coefficients of like terms together - include the sign in front of them)

Ex 1

$$\textcircled{3n} + 5\textcircled{-n} + 6$$

$$2n + 11$$

Ex 2

$$\textcircled{6x} \boxed{+3} - y + \textcircled{2x} \boxed{-4} + 3y$$

$$6x + 2x + 3 - 4 - y + 3y$$

$$8x - 1 + 2y$$