

## Combining like terms

- multi-Step equations often include multiple terms which need 'tidied up' or combined before you can get on with solving for the variable.

eg  $17w + 3 + 4 = 39$

These should be combined  
they are like terms

$17w + 5 = 39 \Rightarrow$  now you can solve.

- Like terms are similar terms either numbers or numbers and variables

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

$10x - 6$

note: You cannot combine terms that are not alike.

$12x + 3$  is not  $15x$

## Combining like terms Cont'd

- remember to 'capture' the sign in front of the term - Consider it part of the family

$$\boxed{-3x} + 4 \boxed{-6x}$$

$$-3x - 6x$$

$$-9x + 4$$

- Do not make the mistake of ignoring the sign or capturing a sign from another 'family'

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

\* Pay attention to the Signs \*