

ALGEBRA: Rearranging equations / changing the subject 1

In all questions, change the subject of the equation to x

Example:

$$(1) \quad y = \frac{3x-2}{5}$$

multiply both sides by 5:

$$5y = 3x - 2$$

add 2 to both sides:

$$5y + 2 = 3x$$

divide both sides by 3:

$$\frac{5y+2}{3} = x$$

Swap, so the subject x is on the lhs:

$$x = \frac{5y+2}{3}$$

You don't have to write out what you're doing at each step (though you can if you want to), as long as you're thinking it, and are doing it the whole of each side

At the end, just double check for any possible simplification, e.g Common factors. Make it pretty

$$(2) \quad 2y + 4x = -3$$

$$(3) \quad 5y - 4 = \frac{2x+3}{2}$$

$$(4) \quad \frac{5x-2}{3} = \frac{7-y}{2}$$

$$(5) \quad \frac{y-4}{3} = \frac{2}{x-1}$$