

Practise Solving systems by Substitution

① $y = -5x + 12$

② $y = x + 4$

step 1: $x + 4 = -5x + 12$

$6x + 4 = 12$

$6x = 8$

$x = \frac{4}{3}$

step: find y

$y = x + 4$

$y = \frac{4}{3} + \frac{4}{1}$

$y = \frac{4}{3} + \frac{12}{3}$

$y = \frac{16}{3}$

∴ $\text{sol } (\frac{4}{3}, \frac{16}{3})$

①

$$4x + y = 6$$

②

$$3x - 2y = 10$$

~~$4x$~~ $4x + y = 6$ ~~$-4x$~~

$$y = -4x + 6$$

$$3x - 2(-4x + 6) = 10$$

$$3x + 8x - 12 = 10$$

~~$11x$~~ $11x - 12 = 10$ ~~-12~~ $+12$

~~$11x$~~ $= \frac{22}{11}$

$$x = 2$$

Find y

$$4x + y = 6$$

$$4(2) + y = 6$$

~~-8~~ $8 + y = 6$ ~~-8~~

$$y = -2$$

L.S	R.S
$3x - 2y$	10
$3(2) - 2(-2)$	
$6 + 4$	
10	

✓