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## Simultaneous Equations - Substitution Method - Tutorial 2

$xy - x = -10$ ①	$\therefore x = \frac{5}{2}$ or $x = -2$
$2x + y = 2$ ②	Sub. into ①
from ② $y = 2 - 2x$ ③	when $x = \frac{5}{2}$ , $y = 2 - 2(\frac{5}{2})$ $= -3$
Sub. ③ into ①:	when $x = -2$ , $y = 2 - 2(-2)$ $= 6$
$\therefore x(2 - 2x) - x = -10$	$\therefore x = \frac{5}{2}, y = -3$
$\therefore 2x - 2x^2 - x = -10$	or
$\therefore -2x^2 + x = -10$	$x = -2, y = 6$
$\therefore 2x^2 - x - 10 = 0$	
$\therefore (2x - 5)(x + 2) = 0$	
$\therefore 2x - 5 = 0$ or $x + 2 = 0$	

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