

Fill in the Blanks

Solving Non-Linear Simultaneous Equations

Question	State $x = / y =$ substitution	Substitute and rearrange to give quadratic equation	Solve the quadratic equation	Find corresponding y or x values
$y = x^2 - 5x + 3$ $y = 2x - 7$	$y = 2x - 7$	$2x - 7 = x^2 - 5x + 3$ $0 = x^2 - 7x + 10$	$(x - 2)(x - 5) = 0$ $x = 2$ or $x = 5$	
$x^2 + 2y = 13 - 4x$ $x + y = 5$	$y = 5 - x$	$x^2 + 2(5 - x) = 13 - 4x$ $x^2 + 10 - 2x = 13 - 4x$ $x^2 + 2x - 3 = 0$		
$x^2 + y^2 = 20$ $x - y = 2$	$x = y + 2$			
$y + 10 = x^2 + x$ $x - y - 1 = 0$				
$3x^2 - 2y = 7x - 8$ $3x = y - 2$				
$x^2 + y^2 + xy = 31$ $x + y + 1 = 0$				