

1 Complete this table, to solve each pair of simultaneous equations.

Equations	Solved for 1st Variable	Solved for 2nd Variable
$3x - y = 1$ $x + y = 3$	$ \begin{array}{r} 3x - y = 1 \\ + \quad x + y = 3 \\ \hline 4x \quad = 4 \\ x \quad = 1 \end{array} $	Sub $x = 1$ into either equation: $1 + y = 3$ $y = 2$
$2x - y = 2$ $x + y = 7$		
$4x + y = 9$ $2x - y = 3$		
$-x + 2y = 13$ $x + y = 8$		
$2x + y = 7$ $x + y = 4$		
$3x + y = 9$ $2x + y = 7$		
$5x - 2y = 13$ $3x + 2y = 3$		

2 Complete this table, to solve each pair of simultaneous equations. One of the equations will need to be 'scaled'.

Equations	Scaled	Solved for 1st Variable	Solved for 2nd Variable
$5x + 2y = 11$ $3x - 4y = 4$	$\xrightarrow{\times 2} 10x + 4y = 22$ $3x - 4y = 4$	$10x + 4y = 22$ $+ 3x - 4y = 4$ <hr/> $13x = 26$ $x = 2$	Sub $x = 2$ into any equation. $5(2) + 2y = 11$ $10 + 2y = 11$ $2y = 1$ $y = \frac{1}{2}$
$3x + 2y = 8$ $2x - y = 3$			
$3x + 2y = 11$ $2x - y = -3$			
$2x + 3y = 11$ $3x + y = 13$			
$2x - 3y = 8$ $x - 5y = 11$			
$x + 6y = 0$ $3x - 2y = -10$			
$5x - 4y = 24$ $2x = y + 9$			

3 Complete this table, to solve each pair of simultaneous equations. One of the equations will need to be 'scaled'.

Equations	Scaled	Solved for 1st Variable	Solved for 2nd Variable
$2x + 3y = 5$ $5x - 2y = -16$	$\xrightarrow{\times 2} 4x + 6y = 10$ $\xrightarrow{\times 3} 15x - 6y = -48$	$4x + 6y = 10$ $+ 15x - 6y = -48$ <hr/> $19x = -38$ $x = -2$	Sub $x = -2$ into any equation. $2(-2) + 3y = 5$ $-4 + 3y = 5$ $3y = 9$ $y = 3$
$2x + 5y = 24$ $4x + 3y = 20$			
$2x + 3y = 11$ $3x + 4y = 15$			
$3x + 8y = 27$ $-4x - 3y = -13$			
$2x + 3y = 14$ $8x - 5y = 5$			
$9x - 4y = -20$ $5x - 6y = -13$			
$2y = 3x - 5$ $1 = 5x - 4y$			