

# Fill in the Blanks

## Simultaneous Equations (same y coefficients)

Question	Add or subtract?	Carry out addition or subtraction	Work out x	Substitute x into one equation	Work out y	Check using other equation	State both answers
$\begin{aligned} 3x + y &= 17 \\ x + y &= 7 \end{aligned}$	Subtract	$\begin{array}{r} 3x + y = 17 \\ - x + y = 7 \\ \hline 2x \quad = 10 \end{array}$	$x = 5$	$\begin{aligned} 3x + y &= 17 \\ 15 + y &= 17 \end{aligned}$	$y = 2$	$\begin{aligned} x + y &= 7 \\ 5 + 2 &= 7 \\ &\checkmark \end{aligned}$	$\begin{aligned} x &= 5 \\ y &= 2 \end{aligned}$
$\begin{aligned} 5x + 2y &= 12 \\ 3x - 2y &= 4 \end{aligned}$	Add	$\begin{array}{r} 5x + 2y = 12 \\ + 3x - 2y = 4 \\ \hline 8x \quad = 16 \end{array}$	$x = 2$	$\begin{aligned} 5x + 2y &= 12 \\ 10 + 2y &= 12 \\ 2y &= 2 \end{aligned}$			
$\begin{aligned} x - 2y &= 2 \\ 4x + 2y &= 18 \end{aligned}$	Add	$\begin{array}{r} x - 2y = 2 \\ + 4x + 2y = 18 \\ \hline \end{array}$					
$\begin{aligned} 4x - 3y &= 18 \\ x - 3y &= 9 \end{aligned}$							
$\begin{aligned} x + 4y &= 19 \\ 3x + 4y &= 17 \end{aligned}$							
$\begin{aligned} 2x + y &= 3 \\ 6x - y &= 17 \end{aligned}$							