

Algebra 1

chapter

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Section 1.9 Solving simultaneous linear equations

PROJECT MATHS
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1. Solving simultaneous linear equations with two variables

Example 1

Solve the equations $3x - y = 1$ ^① and $x - 2y = -8$. ^②

<p>Eliminate xs</p> <p>$\begin{matrix} \textcircled{1} \\ -3 \textcircled{2} \\ \hline \end{matrix}$</p> <p>$\div 5$</p>	$\begin{array}{r} \cancel{3x} - y = 1 \\ -\cancel{3x} + 6y = +24 \\ \hline 5y = 25 \\ \boxed{y = 5} \end{array}$
<p>Sub in $y=5$ into $\textcircled{2}$</p> <p>$+10$</p>	$\begin{array}{r} x - 2(5) = -8 \\ x - 10 = -8 \\ \boxed{x = 2} \end{array}$ <p>Intersection is $(2, 5)$</p>