

Exercise walk-through

2.3

Simultaneous

Pearson Edexcel · International GCSE · Mathematics A

Exercises 2.1·2.3

2.1 (Foundation) Solve $x+y=12$ and $3x+2y=31$. Find x .

2.2 (Foundation) For those equations, find y .

2.3 (Foundation) Find the larger x -coordinate where $y=x+1$ meets $y=x^2-1$.

3 Exam-style questions

Exercises 2.1·2.3

2.1 (Foundation) Solve $x+y=12$ and $3x+2y=31$. Find x .

2.1 Subtract twice $x+y=12$ from $3x+2y=31$: $x=31-24=7$.

2.2 (Foundation) For those equations, find y .

2.2 Use $x+y=12$, so $y=12-7=5$.

2.3 (Foundation) Find the larger x -coordinate where $y=x+1$ meets $y=x^2-1$.

3 Exam-style questions

2.3 Equate the graphs: $x^2-x-2=(x-2)(x+1)=0$. The larger root is 2.

Exercise 3.1

3.1 Decide whether this claim is true. Justify with a concrete calculation or counterexample: A pair of simultaneous equations is solved by checking just one of them.

Exercise 3.1

3.1 Decide whether this claim is true. Justify with a concrete calculation or counterexample: A pair of simultaneous equations is solved by checking just one of them.

3.1 False. The point $(0,12)$ satisfies $x+y=12$ but not $3x+2y=31$. The solution $(7,5)$ satisfies both equations: $7+5=12$ and $21+10=31$.

Local review guidance: show the chosen method; give the checked result; explain the condition or failed shortcut. This is authored classroom guidance.