Simultaneous Equations IGCSE Higher Tier Exam Questions

June 2011 3H Paper

22 Solve the simultaneous equations

\[ y = 2x - 3 \]

\[ x^2 + y^2 = 2 \]

May 2012 3H Paper

21 Solve the simultaneous equations

\[ y = 2x^2 \]

\[ y = 20 - 3x \]

Show clear algebraic working.

Jan 2013 4H Paper

26 Solve the simultaneous equations

\[ y = 3x + 2 \]

\[ x^2 + y^2 = 20 \]

Show clear algebraic working.
Simultaneous Equations IGCSE Higher Tier Exam Questions

May 2013 3HR Paper

25 Solve the simultaneous equations

\[ x^2 + y^2 = 26 \]
\[ y = 3 - 2x \]

Show clear algebraic working.

May 2013 4HR Paper

13 (a) Solve the simultaneous equations

\[ 5x + 3y = 9 \]
\[ 7x - 2y = 25 \]

Show clear algebraic working.

(b) \( P \) is the point of intersection of the lines with equations \( 5x + 3y = 9 \) and \( 7x - 2y = 25 \)

Write down the coordinates of \( P \).

Jan 2014 3HR Paper

13 (a) Solve the simultaneous equations

\[ 3x + 5y = 14 \]
\[ 4x + 3y = 4 \]

Show clear algebraic working.
Simultaneous Equations IGCSE Higher Tier Exam Questions

(b) Write down the coordinates of the point of intersection of the two lines whose equations are $3x + 5y = 14$ and $4x + 3y = 4$

Jan 2014 4HR Paper

22 Solve the simultaneous equations

\[ x^2 + y^2 = 26 \]
\[ y = 3 - 2x \]

Show clear algebraic working.

May 2014 3HR Paper

13 Solve the simultaneous equations

\[ 3x + 4y = 6 \]
\[ 5x + 6y = 11 \]

Show clear algebraic working.
Simultaneous Equations IGCSE Higher Tier Exam Questions

May 2014 4H Paper

15 Solve the simultaneous equations

\[3x + 2y = 7\]
\[4x - 3y = 15\]

Show clear algebraic working.

Jan 2015 3H Paper

12 Solve the simultaneous equations

\[5y - 4x = 8\]
\[y + x = 7\]

Show clear algebraic working.

Jan 2015 3HR Paper

24 Solve the simultaneous equations

\[y = 2x - 3\]
\[x^2 + y^2 = 41\]

Show clear algebraic working.
Simultaneous Equations IGCSE Higher Tier Exam Questions

Jan 2015 4HR Paper

4 Solve \( x + 2y = 3 \)
\[ x - y = 6 \]
Show clear algebraic working.

May 2015 3H Paper

13 (a) Solve \[ 3x + 3y = 9 \]
\[ 4x + 2y = 13 \]
Show clear algebraic working.

L is a line parallel to the line with equation \( 4x + 2y = 13 \)
L passes through the point with coordinates \((3, -1)\)
(b) Find an equation for the line L.

May 2015 3HR Paper

14 Solve the simultaneous equations
\[ 8x - 4y = 7 \]
\[ 12x - 8y = 6 \]
Show clear algebraic working.
Simultaneous Equations IGCSE Higher Tier Exam Questions

June 2015 4H Paper

23  Solve  \( x^2 + y^2 = 20 \)
     \[ y = 10 - 2x \]

Show clear algebraic working.

Jan 2016 3HR Paper

11  Solve the simultaneous equations
     \[ c + 5d = -13 \]
     \[ 4c - 5d = 48 \]

Show clear algebraic working.

Jan 2016 4H Paper

11  Solve the simultaneous equations
     \[ 5x + y = 17 \]
     \[ x + y = 3 \]

Show clear algebraic working.
Simultaneous Equations IGCSE Higher Tier Exam Questions

Jan 2016 4HR Paper

24 Solve the simultaneous equations

\[ y = 3x + 2 \]
\[ x^2 + y^2 = 20 \]

Show clear algebraic working.

May 2016 3H Paper

12 Solve the simultaneous equations

\[ 4x + 5y = 13 \]
\[ 3x - 2y = 27 \]

Show clear algebraic working.

June 2016 4HR Paper

10 Solve \[ 4x + 3y = 6 \]
\[ 3x + 5y = -1 \]

Show clear algebraic working.
12. Solve the simultaneous equations
\[ 2x - 5y = 13 \]
\[ 6x + 3y = 3 \]

20. Solve the simultaneous equations
\[ y = x^2 \]
\[ y = 7x - 10 \]

21. Solve the simultaneous equations
\[ y = 2x^2 \]
\[ y = 3x + 14 \]
Simultaneous Equations IGCSE Higher Tier Exam Questions

Nov 2009 3H Paper

14. Solve the simultaneous equations

\[ 2x - 3y = 3 \]
\[ 3x + 6y = 1 \]

Nov 2009 4H Paper

22. Solve the simultaneous equations

\[ y - 3x = 4 \]
\[ x^2 + y^2 = 34 \]

May 2009 3H Paper

11. (a) Solve the simultaneous equations

\[ 2x - 3y = 9 \]
\[ 5x + 4y = 11 \]

(b) Write down the coordinates of the point of intersection of the two lines whose equations are \( 2x - 3y = 9 \) and \( 5x + 4y = 11 \)
Simultaneous Equations IGCSE Higher Tier Exam Questions

Nov 2008 4H Paper

15. Solve the simultaneous equations

\[
\begin{align*}
5x + 4y &= 3 \\
x - 2y &= 2
\end{align*}
\]

You must show sufficient working.

May 2008 4H Paper

9. Solve the simultaneous equations

\[
\begin{align*}
3x + y &= 4 \\
5x - y &= 8
\end{align*}
\]

You must show sufficient working.

Nov 2007 3H Paper

14. Solve the simultaneous equations

\[
\begin{align*}
2x + 5y &= 16 \\
4x + 3y &= 11
\end{align*}
\]
19. Solve the simultaneous equations

\[ y = 3x - 1 \]
\[ x^2 + y^2 = 5 \]

6. Solve the simultaneous equations

\[ y = x + 3 \]
\[ y = 7x \]

18. Solve the simultaneous equations

\[ y = x^2 \]
\[ y = 2x + 15 \]
Simultaneous Equations IGCSE Higher Tier Exam Questions

Nov 2006 4H Paper

12. Solve the simultaneous equations

\[ 6x + 5y = 5 \]
\[ 3x - 10y = 15 \]

May 2006 4H Paper

17. Solve the equations

\[ y = 2x + 1 \]
\[ x^2 + y^2 = 13 \]

Nov 2005 3H Paper

21. Solve the simultaneous equations

\[ y = 3x^2 \]
\[ y = 2x + 5 \]
11. (a) Solve the simultaneous equations

\begin{align*}
2x + 3y &= 4 \\
6x + 5y &= 8
\end{align*}

(b) Write down the coordinates of the point of intersection of the two lines whose equations are

\begin{align*}
2x + 3y &= 4 \text{ and} \\
6x + 5y &= 8
\end{align*}

Nov 2004 4H Paper

12. Solve the simultaneous equations

\begin{align*}
6x - 5y &= 13 \\
4x - 3y &= 8
\end{align*}
21. Solve the simultaneous equations

\[ 2x + y = 6 \]
\[ x^2 + y^2 = 20 \]

7. Showing clear algebraic working, solve the simultaneous equations

\[ 3a + 2b = 1 \]
\[ a + 2b = 5 \]

22. Solve the simultaneous equations

\[ 2x - y = 7 \]
\[ x^2 + y^2 = 34 \]

Show clear algebraic working.