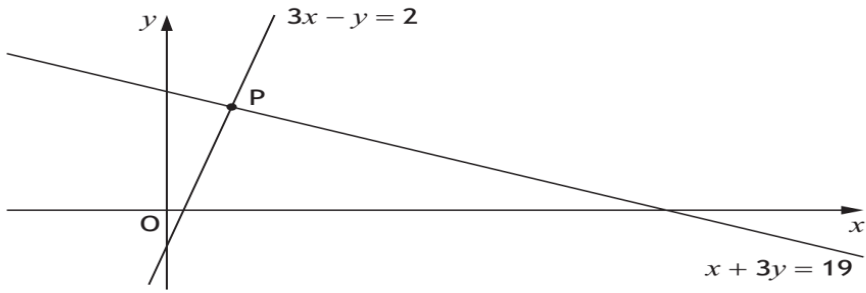


# Simultaneous Eqns

YEAR	PAPER	QUESTION
2014	2	<p>Two groups of people go to a theatre.                      Bill buys tickets for 5 adults and 3 children.                      The total cost of his tickets is £158.25.</p> <p>(a) Write down an equation to illustrate this information. <span style="float: right;">1</span></p> <p>(b) Ben buys tickets for 3 adults and 2 children.                      The total cost of his tickets is £98.                      Write down an equation to illustrate this information. <span style="float: right;">1</span></p> <p>(c) Calculate the cost of a ticket for an adult and the cost of a ticket for a child. <span style="float: right;">4</span></p>
2015	1	<p>Solve algebraically the system of equations</p> $3x + 2y = 17$ $2x + 5y = 4.$ <p style="text-align: right;">3</p>
2016	1	<p>Charlie is making costumes for a school show.                      One day he made 2 cloaks and 3 dresses.                      The total amount of material he used was 9.6 square metres.</p> <p>(a) Write down an equation to illustrate this information. <span style="float: right;">1</span></p> <p>(b) The following day Charlie made 3 cloaks and 4 dresses.                      The total amount of material he used was 13.3 square metres.                      Write down an equation to illustrate this information. <span style="float: right;">1</span></p> <p>(c) Calculate the amount of material required to make one cloak and the amount of material required to make one dress. <span style="float: right;">4</span></p>
2017	1	<p>The graph below shows two straight lines with the equations:</p> <ul style="list-style-type: none"> <li>• <math>3x - y = 2</math></li> <li>• <math>x + 3y = 19</math></li> </ul> <div style="text-align: center;">  </div> <p>The lines intersect at the point P.                      Find, <b>algebraically</b>, the coordinates of P. <span style="float: right;">3</span></p>

2018	1	<p>Solve, algebraically, the system of equations</p> $4x + 5y = -3$ $6x - 2y = 5.$ <p style="text-align: right;">3</p>
2019	1	<p>John bought 7 bags of cement and 3 bags of gravel. The total weight of these bags was 215 kilograms.</p> <p>(a) Write down an equation to illustrate this information. <span style="float: right;">1</span></p> <p>Shona bought 5 bags of cement and 4 bags of gravel. The total weight of her bags was 200 kilograms.</p> <p>(b) Write down an equation to illustrate this information. <span style="float: right;">1</span></p> <p>(c) Calculate the weight of one bag of cement and the weight of one bag of gravel. <span style="float: right;">4</span></p>
2022	2	<p>Moira buys 4 mangoes and 3 apples at a fruit shop. The total cost is £4.25.</p> <p>(a) Write down an equation to illustrate this information. <span style="float: right;">1</span></p> <p>Sami buys 5 mangoes and 2 apples in the same fruit shop. The total cost is £4.70.</p> <p>(b) Write down an equation to illustrate this information. <span style="float: right;">1</span></p> <p>(c) Calculate, algebraically, the cost of a mango and the cost of an apple. <span style="float: right;">4</span></p>

