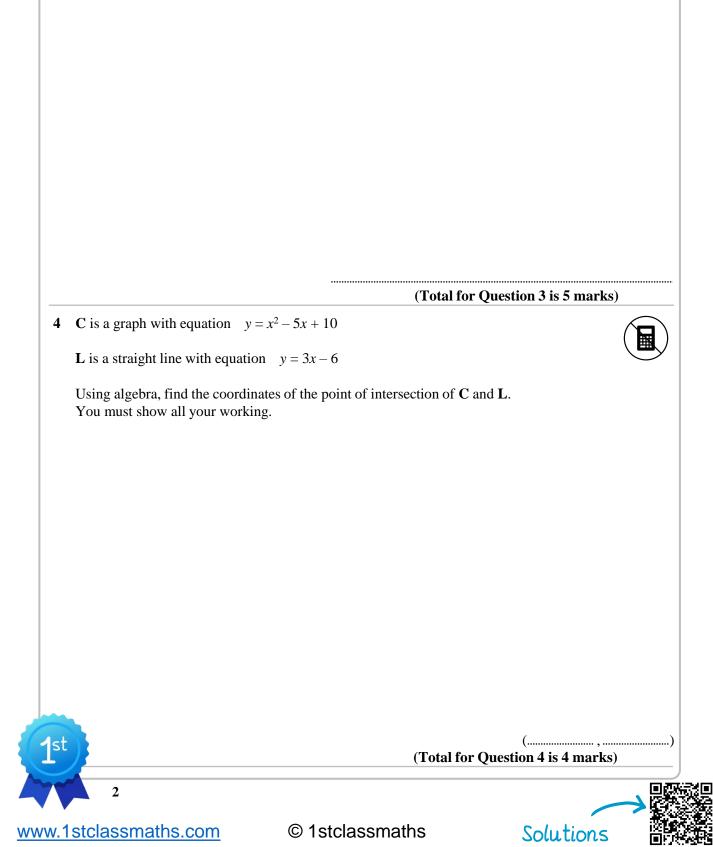
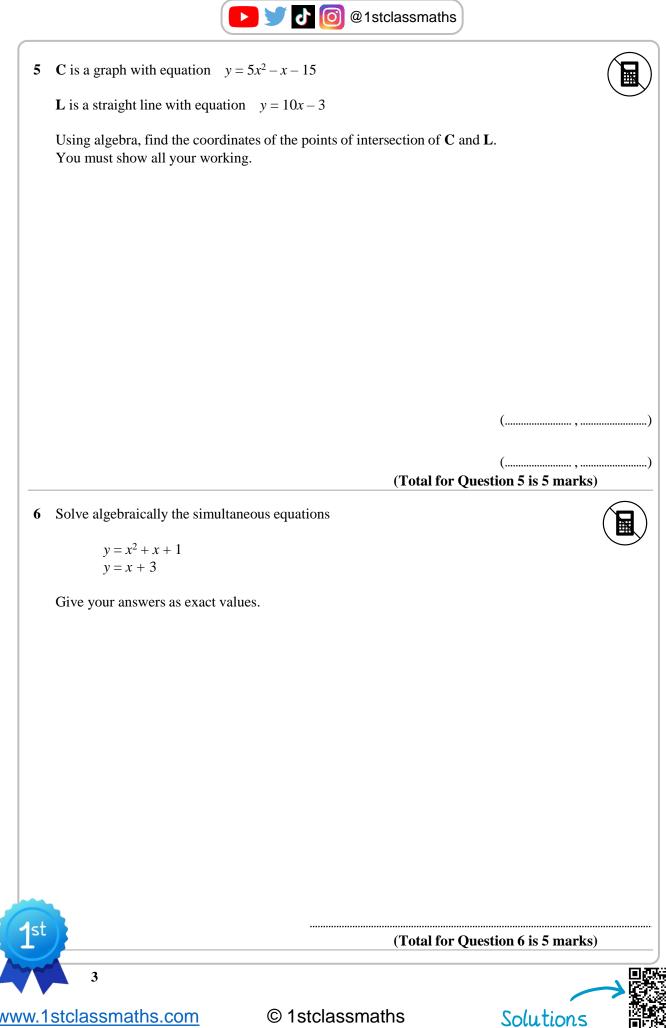




Solve algebraically the simultaneous equations

$$y = 3x^2 + 2x - 8$$
$$y = 9x - 10$$





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7 Solve algebraically the simultaneous equations

$$x^2 + y^2 = 100$$
  
 $y = x - 2$ 



8 Solve algebraically the simultaneous equations

$$x^2 + y^2 = 200$$
$$y = 2x - 10$$

(Total for Question 8 is 5 marks)

.....

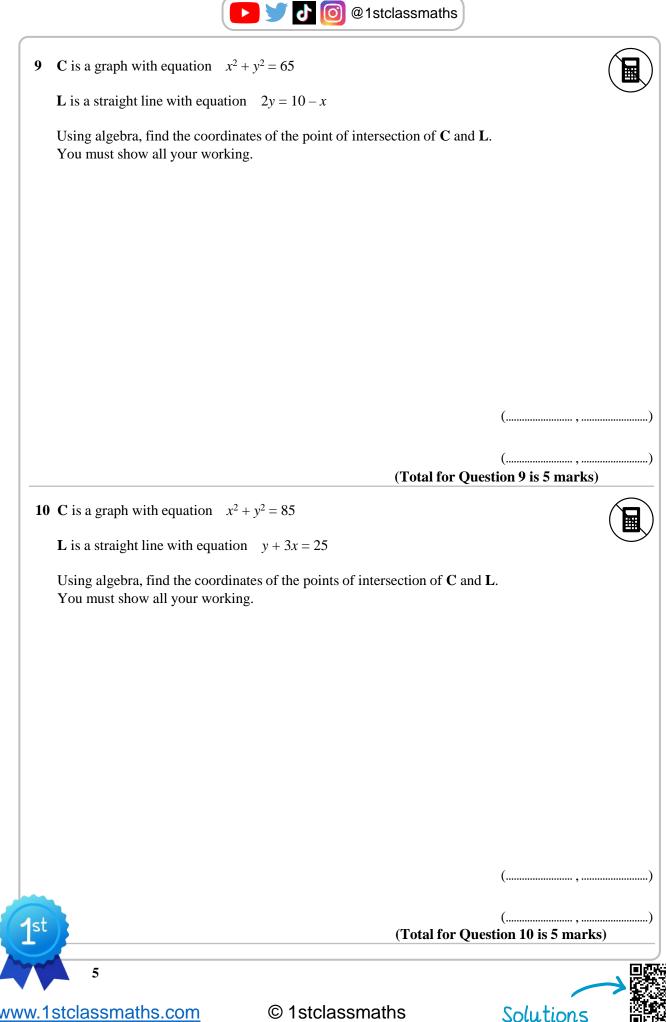


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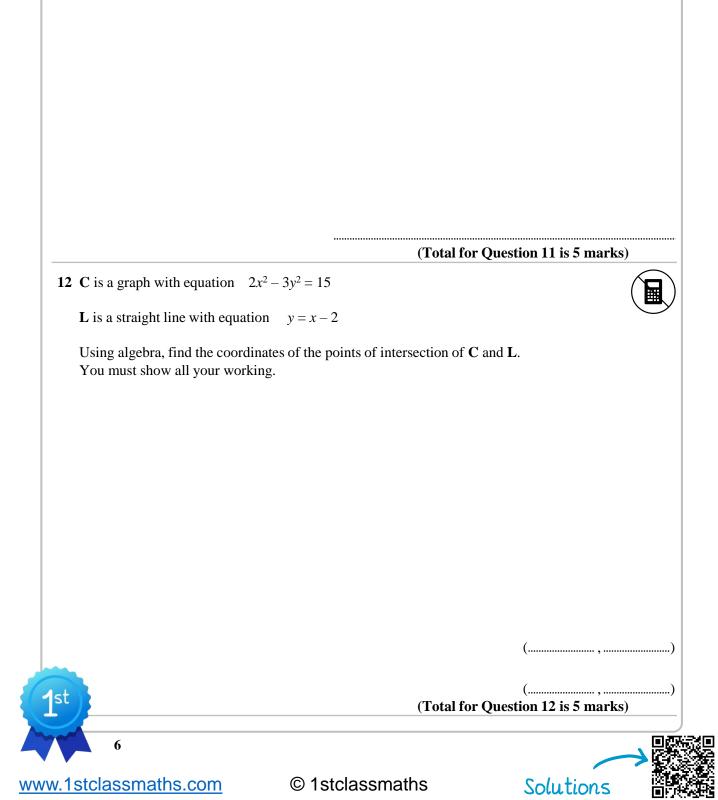
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11 Solve algebraically the simultaneous equations

$$x^2 - 2y^2 = 7$$
$$2y = x + 1$$





**13** C is a graph with equation  $x^2 - 8y^2 = k$  where k is a positive integer.

**L** is a straight line with equation 4y = x - 1

L and C intersect at points A and B.

The *x*-coordinate of point A is -7.

(a) Work out the value of *k*.

(b) Work out the coordinates of point B.



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(Total for Question 13 is 7 marks)

(.....) (4)

*k* = .....

(3)

