1 Solve the simultaneous equations

$$3x + y = -4$$
$$3x - 4y = 6$$

$x =$ .....

$y =$ .....

(Total for Question 1 is 3 marks)

2 Solve the simultaneous equations

$$3x + 4y = 5$$
$$2x - 3y = 9$$

$x =$ .....

$y =$ .....

(Total for Question 2 is 4 marks)

3 Solve the simultaneous equations

$$4x + y = 25$$
$$x - 3y = 16$$

$x =$ .....

$y =$ .....

(Total for Question 3 is 3 marks)

4 Solve the simultaneous equations

$$5x + y = 21$$
$$x - 3y = 9$$

$x =$ .....

$y =$ .....

(Total for Question 4 is 3 marks)

5 Solve

$$2x + 3y = \frac{2}{3}$$

$$3x - 4y = 18$$

$x =$ .....

$y =$ .....

(Total for Question 5 is 4 marks)

6 Solve the simultaneous equations

$$5x + 2y = 11$$
$$4x - 3y = 18$$

$x =$ .....

$y =$ .....

(Total for Question 6 is 4 marks)

7 Solve the simultaneous equations

$$3x + 2y = 4$$
$$4x + 5y = 17$$

$x =$ .....

$y =$ .....

(Total for Question 7 is 4 marks)

8 Solve the simultaneous equations

$$5x + 2y = 11$$
$$4x + 3y = 6$$

$x =$ .....

$y =$ .....

(Total for Question 8 is 4 marks)

9 Solve the simultaneous equations

$$4x + 7y = 1$$
$$3x + 10y = 15$$

$x =$ .....

$y =$ .....

(Total for Question 9 is 4 marks)

10 Solve the simultaneous equations

$$9x + 7y = 3$$
$$5x - 4y = 6.4$$

Show clear algebraic working.

$x =$ .....

$y =$ .....

(Total for Question 10 is 4 marks)

11 3 teas and 2 coffees have a total cost of £7.80
5 teas and 4 coffees have a total cost of £14.20

Work out the cost of one tea and the cost of one coffee.

tea £.....

coffee £.....

(Total for Question 11 is 4 marks)

12 Alison buys 5 apples and 3 pears for a total cost of $1.96
Greg buys 3 apples and 2 pears for a total cost of $1.22

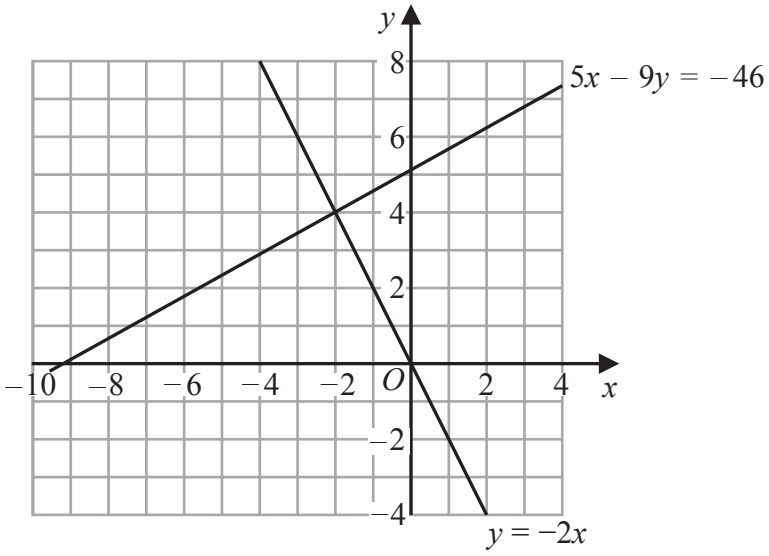
Michael buys 10 apples and 10 pears.

Work out how much Michael pays for his 10 apples and 10 pears.
Show your working clearly.

$.....

(Total for Question 12 is 5 marks)

13



(a) Use these graphs to solve the simultaneous equations

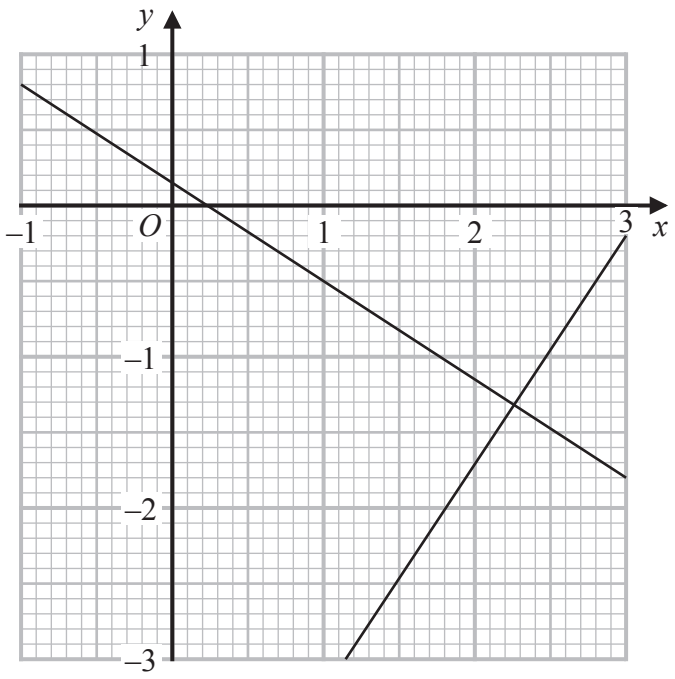
$$5x - 9y = -46$$
$$y = -2x$$

$x =$ .....

$y =$ .....

(Total for Question 13 is 1 mark)

14 The graphs with equations $3y + 2x = \frac{1}{2}$ and $2y - 3x = -\frac{113}{12}$ have been drawn on the grid below.



Using the graphs, find estimates of the solutions of the simultaneous equations

$$3y + 2x = \frac{1}{2}$$

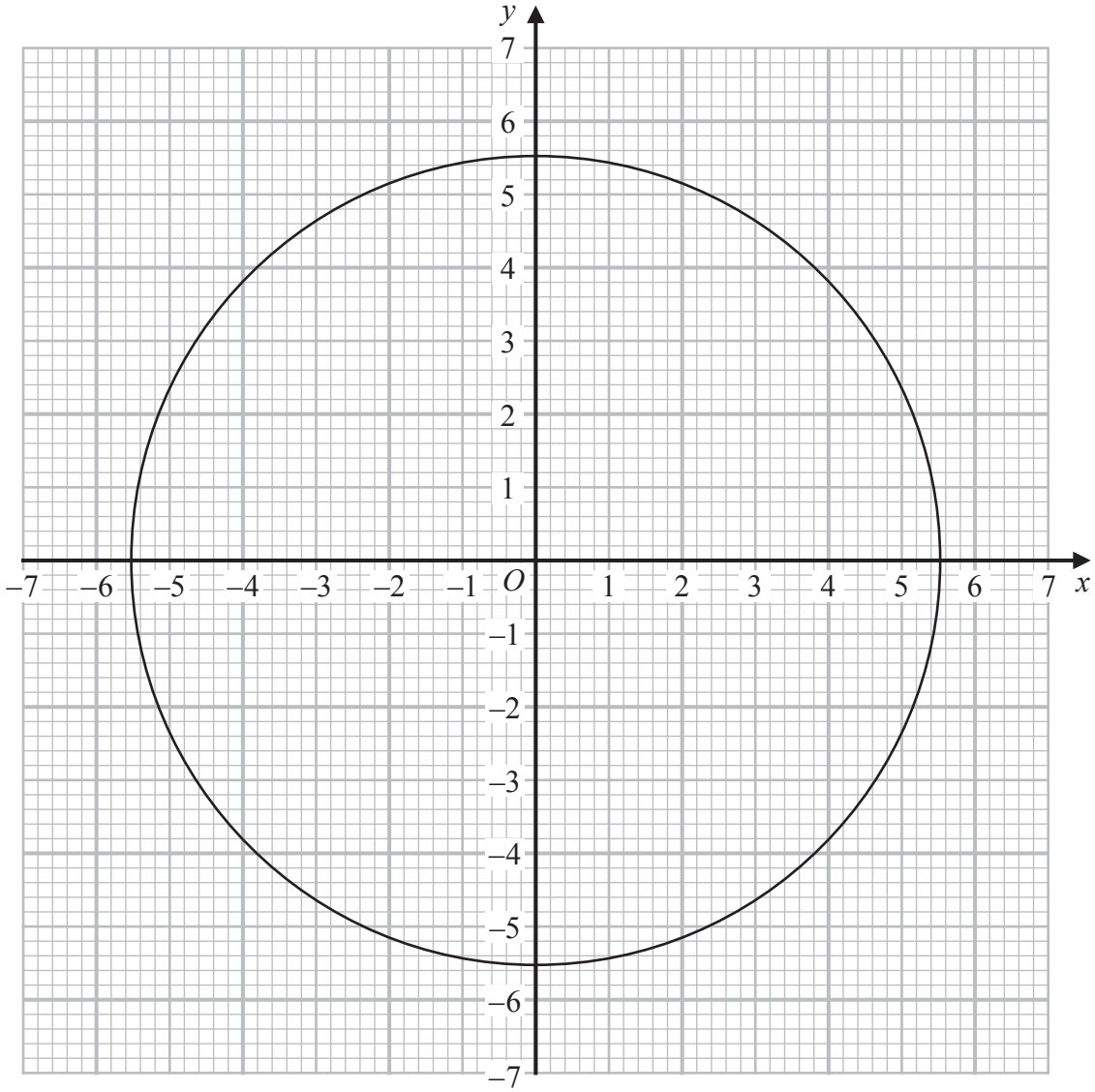
$$2y - 3x = -\frac{113}{12}$$

$x =$ .....

$y =$ .....

(Total for Question 14 is 2 marks)

15 The diagram shows the graph of $x^2 + y^2 = 30.25$



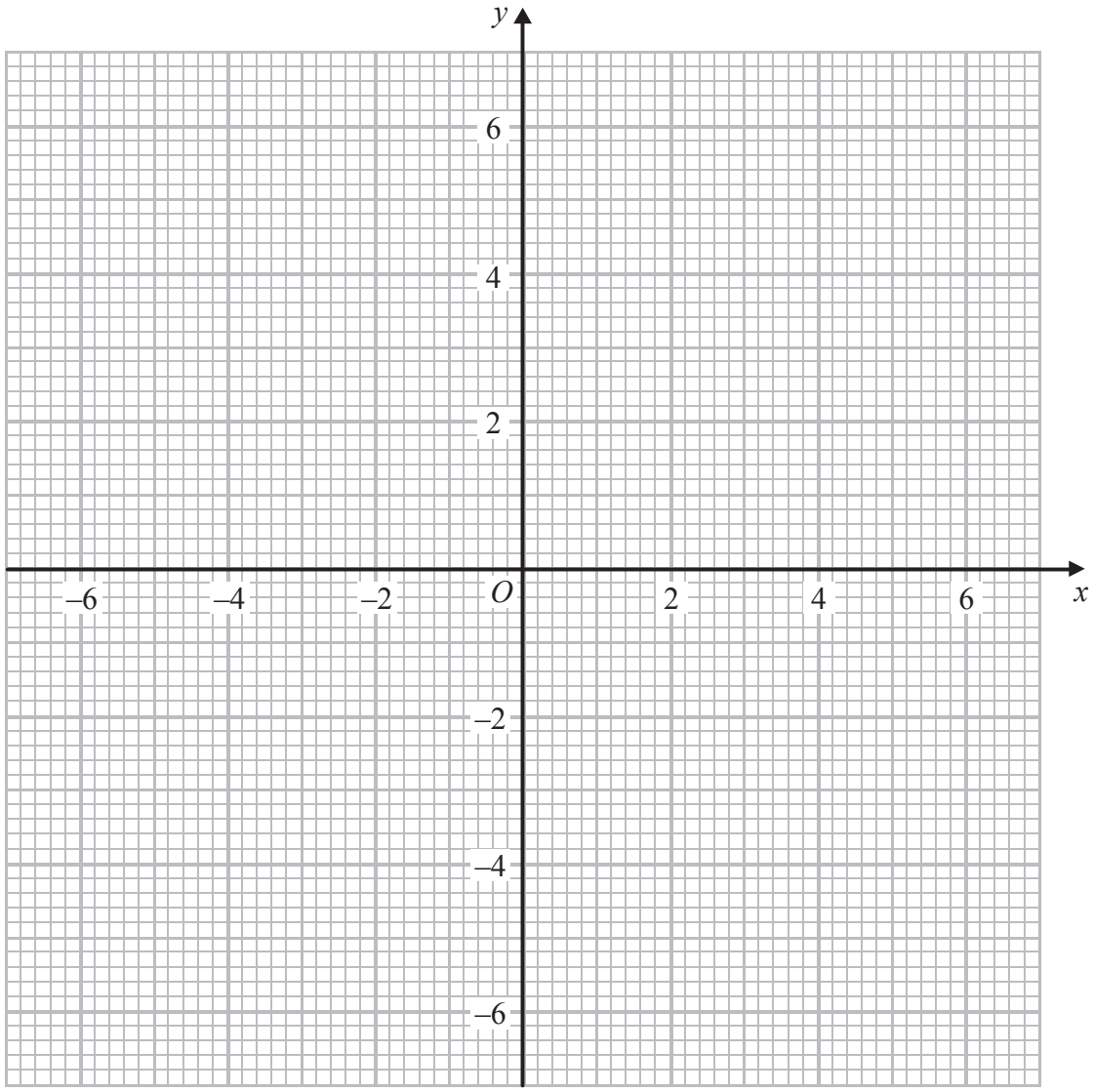
Use the graph to find estimates for the solutions of the simultaneous equations

$$x^2 + y^2 = 30.25$$
$$y - 2x = 1$$

.....

(Total for Question 15 is 3 marks)

16 (a) On the grid, draw the graph of $x^2 + y^2 = 12.25$



(2)

(b) Hence find estimates for the solutions of the simultaneous equations

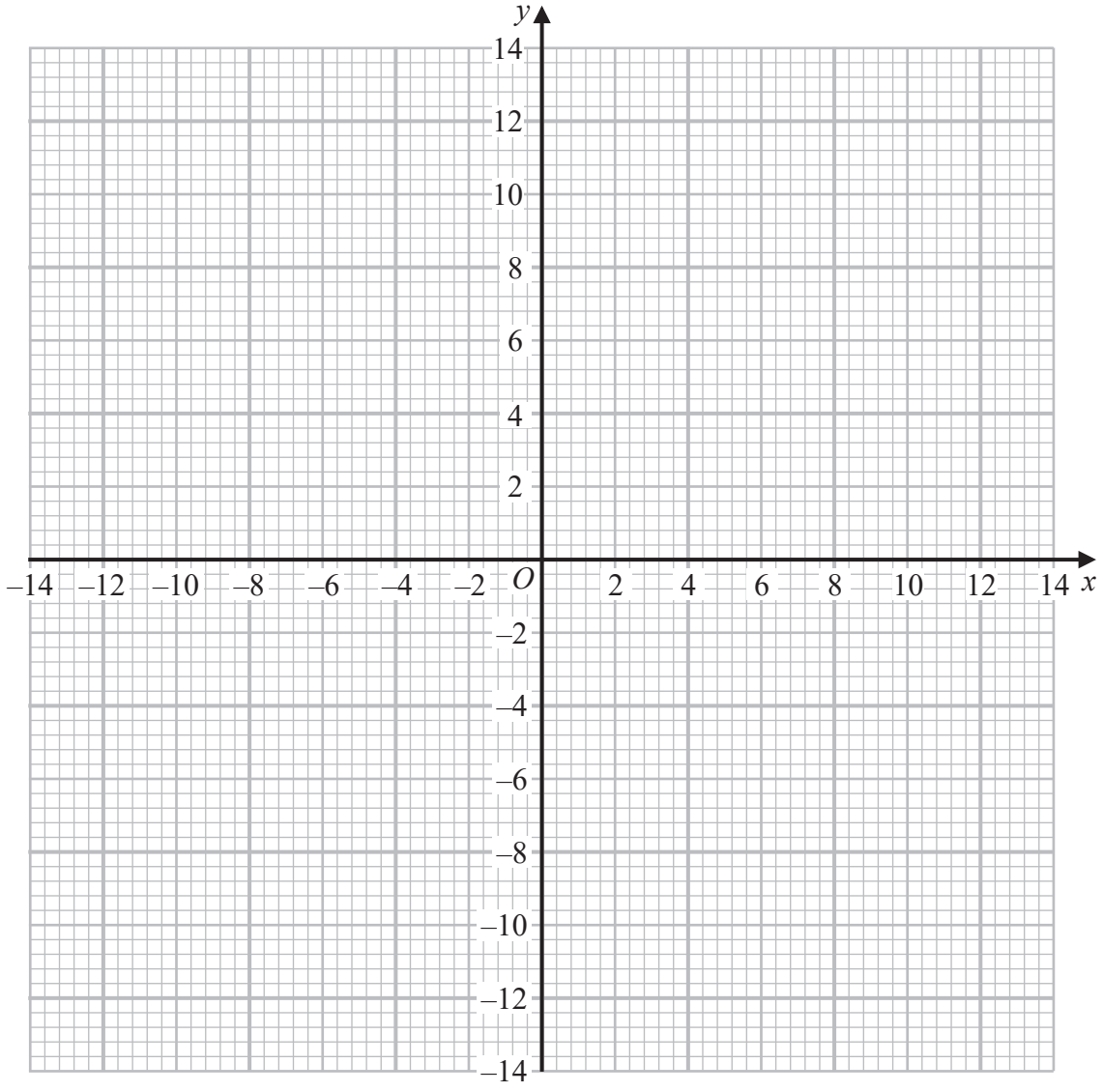
$$x^2 + y^2 = 12.25$$
$$2x + y = 1$$

.....

(3)

(Total for Question 16 is 5 marks)

17 (a) On the grid, draw the graph of $x^2 + y^2 = 169$



(2)

(b) Use your graph to find estimates for the solutions of the simultaneous equations

$$x^2 + y^2 = 169$$
$$2y = 3x$$

.....

(3)

(Total for Question 17 is 5 marks)