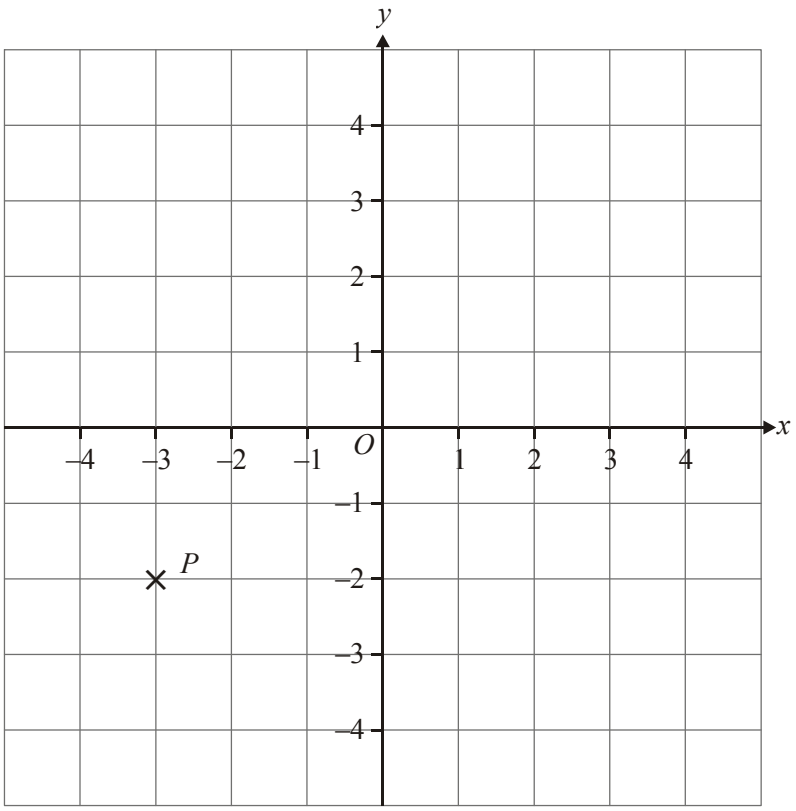
GCSE Exam Questions on Straight Line Graphs (Grade C)

1.



(a) Write down the coordinates of the point P.

(….. , …..)

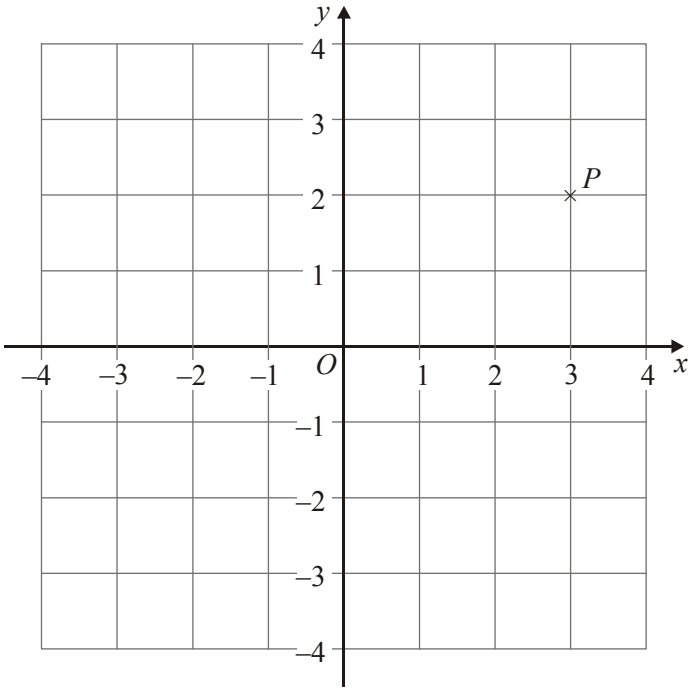
(1)

The point Q has coordinates (4, −2).

(b) On the grid, plot and label the point Q.

(1)
(Total 2 marks)

2.



(a) Write down the coordinates of the point P.

(..... , ...)

(1)

(b) (i) On the grid, plot the point (0, 3).
Label the point Q.

(ii) On the grid, plot the point (–2, –3).
Label the point R.

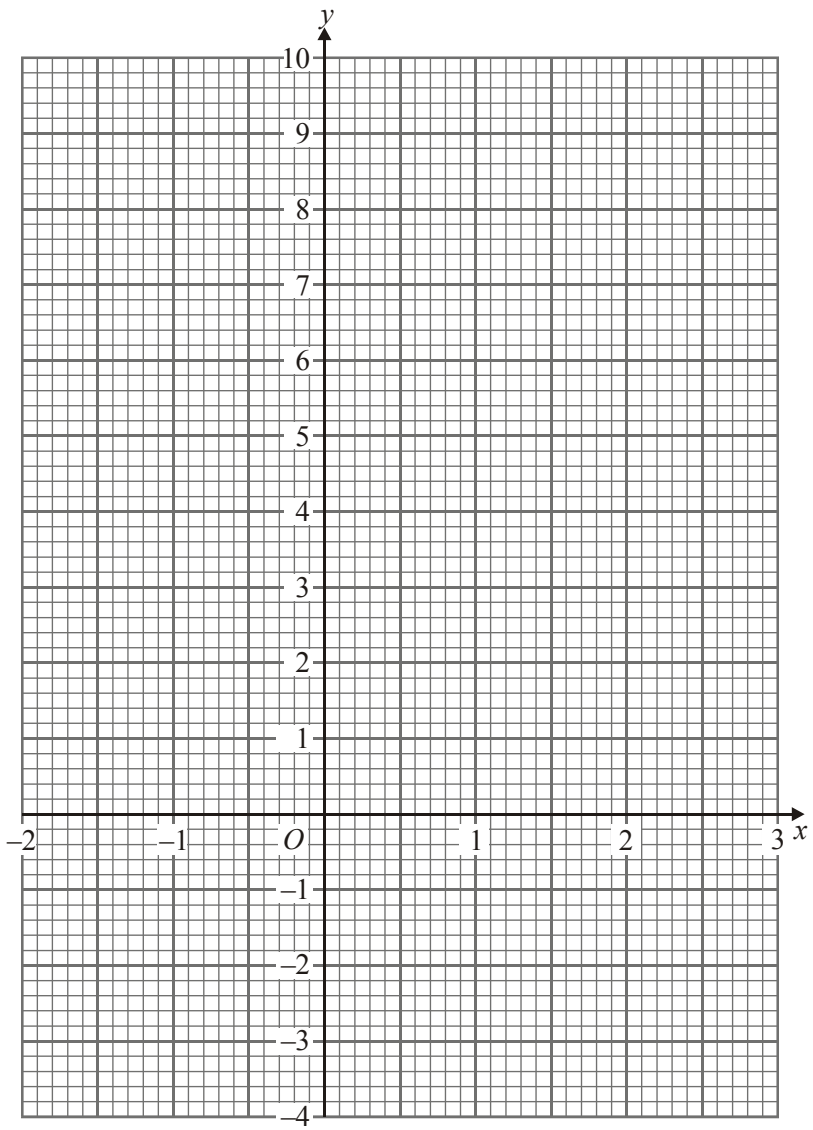
(2)
(Total 3 marks)

3. (a) Complete the table of values for y = 2*x* + 3

x	–2	–1	0	1	2	
y		1	3			

(2)

(b) On the grid, draw the graph of $y = 2x + 3$



(2)

(c) Use your graph to find

(i) the value of *y* when *x* = –1.3

y = ...

(ii) the value of *x* when *y* = 5.4

x = ...

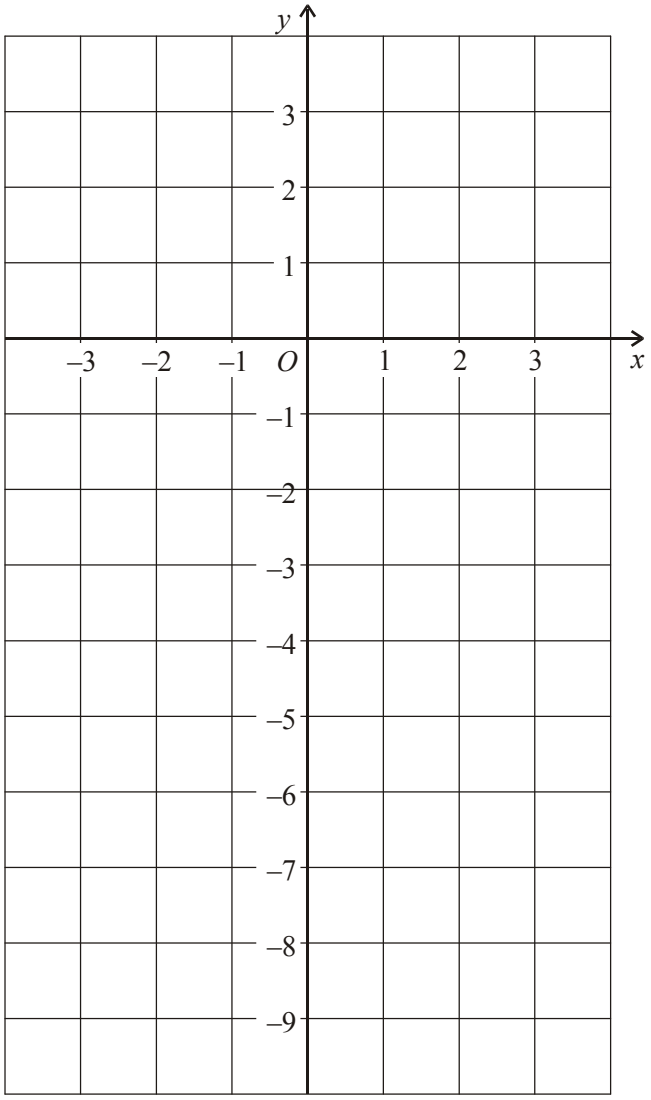
(2)
(Total 6 marks)

4. (a) Complete the table of values for $y = 2x - 3$

x	–3	–2	–1	0	1	2	3
y	–9		–5				3

(2)

(b) On the grid, draw the graph of $y = 2x - 3$



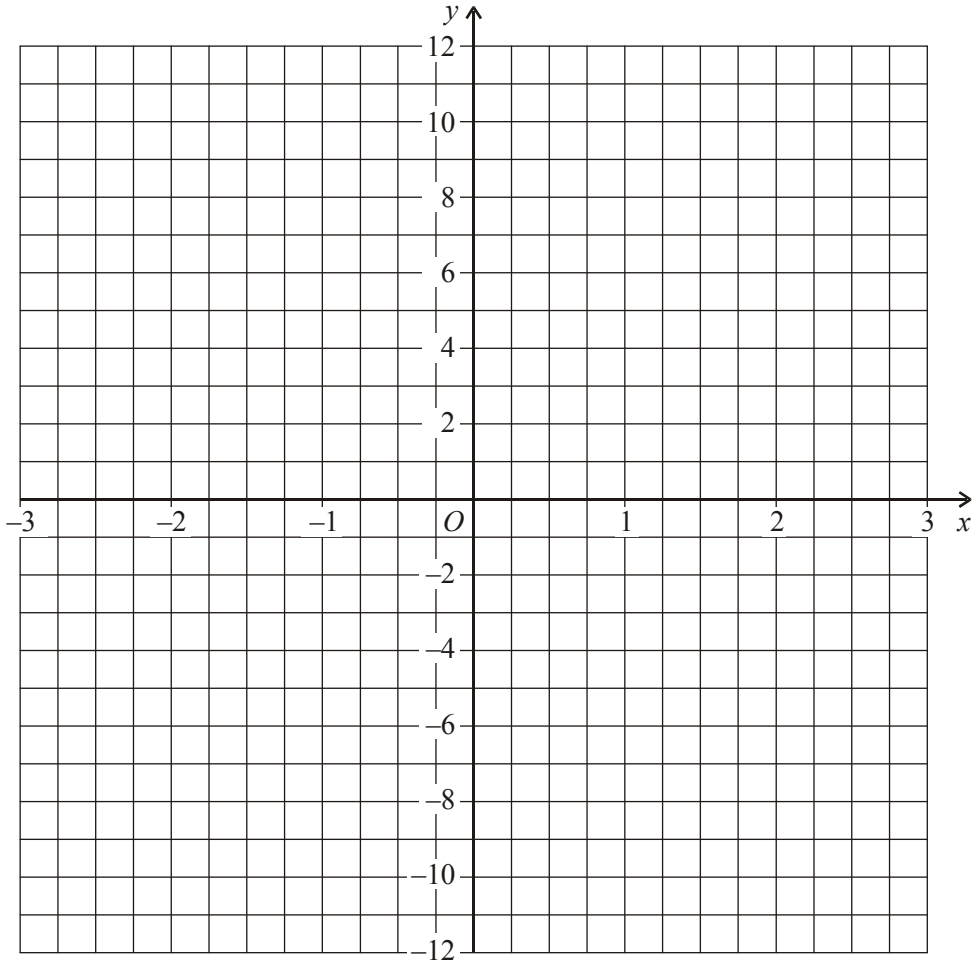
(2)
(Total 4 marks)

5. (a) Complete the table of values for $y = 3x - 2$

x	−3	−2	−1	0	1	2	3
y	−11		−5				7

(2)

(b) On the grid below, draw the graph of $y = 3x - 2$



(2)
(Total 4 marks)

6. A straight line has equation $y = 5 - 3x$

(a) Write down the gradient of the line.

……..

(1)

(b) Write down the coordinates of the point where the line crosses the y axis.

(…… , ……)

(1)
(Total 2 marks)

GCSE Exam Questions on Equations of the Line (Grade B)

7. A straight line, L, has equation $3y = 5x - 6$

Find

(i) the gradient of L,

……

(ii) the y-co-ordinate of the point where L cuts the y-axis.

(0, ……)

(Total 2 marks)

8. Find the gradient of the straight line with equation $5y = 3 - 2x$.

……

(Total 2 marks)

9. A straight line has equation $y = 2(3 - 4x)$

Find the gradient of the straight line.

.....

(Total 2 marks)

10. A straight line passes through the points (0, 5) and (3, 17).

Find the equation of the straight line.

.....

(Total 3 marks)

ANSWERS

1. (a) (− 3, –2) 1

B1 for (− 3, –2)

(b) Plot Q at (4, −2) 1

B1 for Q plotted at (4, −2)

[2]

2. (a) (3, 2) 1

B1 for (3, 2)

(b) (i) *Q* at (0, 3) 1

B1 for Q plotted correctly on y-axis at (0, 3) ±2mm

(ii) *R* at (–2, –3) 1

B1 for R plotted correctly at (–2, –3) ±2mm

[3]

3. (a) –1, (1), (3), 5, 7, 9 2

B2 cao
(B1 for 2 values)

(b) Graph 2

B1 ft for plotting points ±1/2 square
B1 cao for line between x = –2 and x = 3

(c) (i) 0.4 2

B1 for 0.4 or ft from single straight line with positive gradient

(ii) 1.2

B1 for 1.2 or ft from single straight line with positive gradient

[6]

4. –7, –3, –1, 1 4

B2 for all 4 correct
(B1 for 2 or 3 correct)
B2 for correct straight line
(B1 (ft) for all points plotted correctly)

[4]

5. (a) –8, –2, 1, 4 2

B2 for fully correct table
(B1 for 2 or 3 correct)

(b) Correct line 2

B2 for a correct line
[B1 for correct plots from their table]

6. (a) –3 1

B1 cao

(b) 0, 5 1

B1 cao

[2]

7. (i) 5/3 oe 2

B1 (accept 1.66/7)

(ii) –2

B1 cao

[2]

8. $\frac{-2}{5}$ oe

$y = \frac{3}{5} - \frac{2}{5}x$ 2

B1 for $y = \frac{-2}{5}x$ + *constant*

B1 ft for gradient "$\frac{-2}{5}$"

[2]

9. – 8 2

$6 - 8x$

M1 for $6 - 8x$
A1 cao
[SC M1 A0 for – 4 or 8]

[2]

10. $y = 4x + 5$ 3

Gradient = (17 – 5)/(3 – 0) = 4

M1 for (y =) mx + 5

M1 (indep) gradient = $\frac{17-5}{3-0}$ *oe or (y =)4x + c*

A1 for y = 4x + 5 oe

[3]