## Non-Calculator

Q1.
$A B C D$ is a rectangle on a centimetre grid.

(a) Write down the coordinates of $A$.

> Answer (
$\qquad$ , $\qquad$ )
(b) Mark the midpoint of $B C$ with a cross.
(c) Work out the perimeter of the rectangle.
$\qquad$
Answer $\qquad$ cm

Q2.
Lines $A B$ and $B C$ are shown on the centimetre grid.

(a) Write down the coordinates of point $A$.

Answer $\qquad$ , $\qquad$ )
(b) $A, B$ and $C$ are three corners of a rectaAgleD.

Complete the rectangle on the grid.
(c) Work out the perimeter of rectangle $A B C D$.
$\qquad$
$\qquad$
$\qquad$
Answer $\qquad$ cm

Q3.
Point $A$ is shown on the grid.

(a) Write down the coordinates of $A$.

Answer ( $\qquad$ , $\qquad$ )
(b) Plot point $B(8,1)$ on the grid.
(c) Work out the coordinates of the midpoint of $A B$.

Answer ( $\qquad$ , $\qquad$ _)
(2)
(Total 4 marks)

QU.

(a) Write down the coordinates of point $A$.

Answer
( $\qquad$ , $\qquad$ )
(b) Plot the point $(-3,-1)$ on the grid.

Label it $B$.
(c) Point $C$ has

- the same $x$-coordinate as point $A$
- the same $y$-coordinate as point $B$.

Write down the coordinates of point $C$.
$\qquad$ , $\qquad$ )

Q5.
Point $A$ is shown on the grid.

(a) Write down the coordinates of $A$.

Answer ( $\qquad$ , $\qquad$ )
(b) Plot point $B(1,2)$ on the grid.
(c) Point $E$ is the same distance from point $C$ as it is from point $D$ on the grid below.


Write down two possible pairs of coordinates of $E$.
Answer ( $\qquad$ , $\qquad$ ) and ( $\qquad$ , $\qquad$ )
(Total 4 marks)

Q6.

(a) Circle the equation of line $A$.
$y=2$
$x=2$
$x+y=2$
$y=x+2$
(b) On the grid draw the line $y=x$
(c) Write down the coordinates of the point where the line $y=x$ crosses line $A$.

Answer $\qquad$ , $\qquad$ )

Q7.
A straight line passes through the points $(-1,2)$ and $(1,6)$
Another straight line has equation $\quad y=x$
Work out the coordinates of the point of intersection of the two lines.
You may use the grid to help you.

$\qquad$
$\qquad$
$\qquad$
$\qquad$
Answer (....................... , .......................)
(Total 4 marks)

Q8.
On the grid, draw the graph of $\quad x+y=2$ for values of $x$ from -3 to 3


## Calculator

Q9.
(a) Complete the table for $y=3 x+1$

| $x$ | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $y$ | -8 |  | -2 |  | 4 |  |  |

(b) On the grid draw the graph of $y=3 x+1$ for values of $x$ from -3 to 3

(c) Solve $x=3 x+1$
$x=$ $\qquad$

Q10.
Guy is using this table of results to draw the grapłxoffyfor values of $x$ from 0 to 10

| $x$ | 0 | 5 | 10 |
| :---: | :---: | :---: | :---: |
| $y$ | 1 | 6 | 11 |

This is his graph.


Write down three different mistakes he has made. Mistake 1
$\qquad$
$\qquad$
$\qquad$

Q11.
Points $A$ and $B$ are shown on the grid.

(a) Write down the coordinates of $A$.

Answer $\qquad$ , $\qquad$ )
(b) Plot point $C(6,1)$ on the grid.
(c) $A B C D$ is a square.

Write down the coordinates of $D$.
Answer $\qquad$ , $\qquad$ )
(d) Write down the coordinates of the centre of the square.

Answer $\qquad$ , $\qquad$ )
(Total 4 marks)

Q12.
$A$ is the point with coordinates $(x, 2 y) . B$ is the point with coordinates $(3 x, 4 y)$. The midpoint of $A B$ has coordinates $(-4,15)$.

Work out the values of $x$ and $y$.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$


$$
x=
$$

$\qquad$
$y=$ $\qquad$
(Total 4 marks)

Q13.
(a) Complete the table fof $=y 3 x-1$

| $x$ | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $y$ | -10 |  | -4 | -1 | 2 |  | 8 |

(b) On the grid draw the graph of $\beta x-1$ for values offrom -3 to 3

(2)
(Total 4 marks)

Q14.
Points $A, B$ and $C$ are shown on the centimetre grid.

(a) Write down the coordinates of $A$.

Answer
( $\qquad$ , $\qquad$ )
(b) Plot a point $D$ so that $A B C D$ is a parallelogram.
(c) Write down the coordinates of $D$.
$\qquad$ , $\qquad$ )
(Total 3 marks)

Q15.

(a) Plot the points $A(4,3)$ and $B(1,-5)$ on the grid.
(b) Point $C$ has
the same $x$-coordinateas the same $y$-coordinateAas

Plot the point $C$ on the grid.
(c) Point $D$ has
the same $x$-coordinate asytaeordinate of $B$ the same $y$-coordinate astłqeordinate of $A$.

Plot the point $D$ on the grid.

