1. Here is an arithmetic sequence.

$$6 \,, 12 \,, 18 \,, 24 \,, 30 \,, \dots \,, \dots$$

(i)   Write down the next two terms

…………………

(ii)   What is the rule

…………………

(iii)   What is the Nth term

(3 marks)

2.

(a)   Write down the coordinate A

…………………

(b)   Plot the coordinate B (-1 , 5)
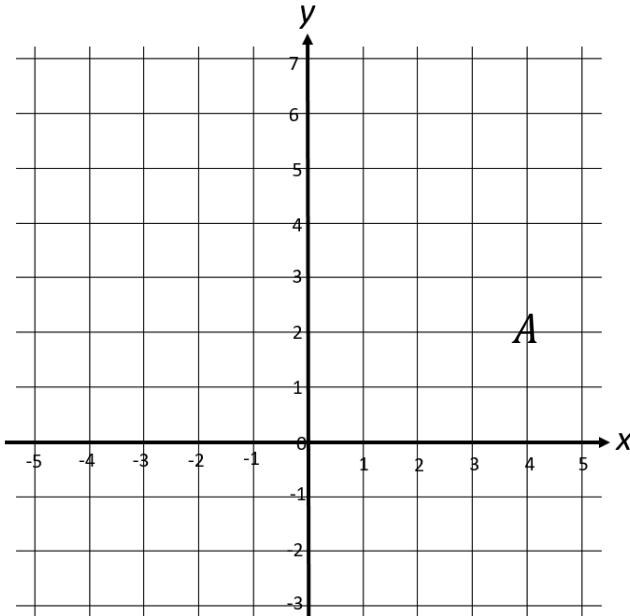
(2 marks)

3. Simplify $m + 2m + m + 3m$

…………………

(1 mark)

4. Simplify $3 \times y \times 5 \times y$

…………………

(1 mark)

5. $a = 4$ $b = 2$ $c = 5$

Work out the value of $2a + 4b + c^2$

…………………

(2 marks)

6. Simplify $w^3 \times w^8$

…………………

(1 mark)

7. Calculate

$$4 \longrightarrow \boxed{\text{X } 5} \longrightarrow \boxed{+ \, 2} \longrightarrow x$$
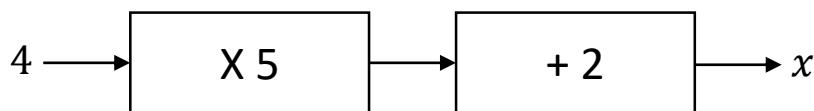
$x =$……………

(1 mark)

8. Simplify $\quad g \times g \times g$

…………………

(1 mark)

9. Expand $\quad 5(x + 1)$

…………………

(1 mark)

10. Factorise $\quad 6a + 10$

…………………

(2 marks)

11. Solve $\quad x - 4 = 13$

$x =$……………

(1 mark)

12. Show the inequality $\; x < -1 \;$ on the number line below.

$$\begin{array}{ccccccccccccc} \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid \\ -5 & -4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 & 5 \;\; x \end{array}$$
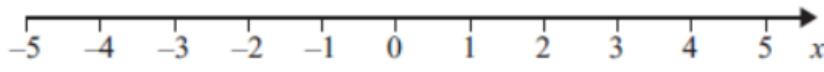
(1 mark)

13. Complete the table of values for $\; y = 2x - 1$

x	-2	-1	0	1	2
y					
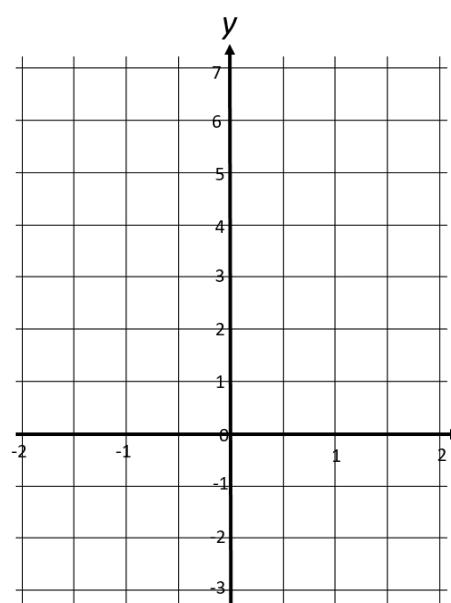
On the grid draw the graph of $\; y = 2x - 1$

(4 marks)

Score =