1. Here is an arithmetic sequence.

$$1, 5, 9, 13, 17, \dots, \dots$$

   (i)    Write down the next two terms

   (ii)   What is the Nth term

   (iii)  What is the $30^{th}$ term in the sequence

2.

   (a)  Write down the coordinate $A$
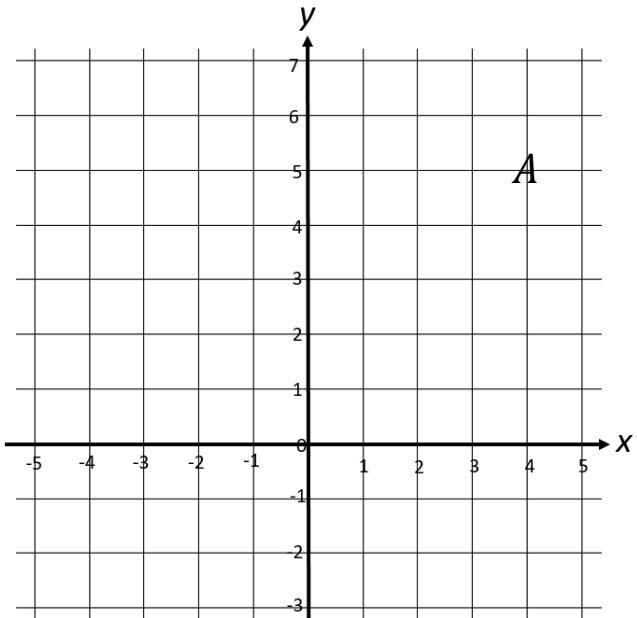
       …………………

   (b)  Plot the coordinate B ( 0 , 1 )

   (c)  Write down the midpoint of AB

       …………………

(4 marks)

3. Simplify   $4g + 8g^2 - 2g + 5g^2$

…………………

(1 mark)

4. Simplify   $6a \times 5b$

…………………

(1 mark)

5.   $a = 3$   $b = 4$   $c = -1$

   Work out the value of   $ab - 3c$

…………………

(2 marks)

6. Simplify   $(a^4)^3$

…………………

(1 mark)

7. Calculate

$x \longrightarrow$ [ X 3 ] $\longrightarrow$ [ -2 ] $\longrightarrow$ 16
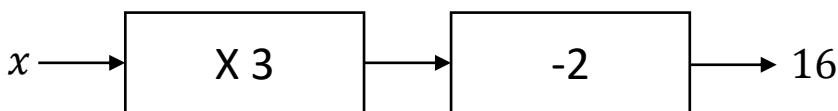
$x =$……………

(1 mark)

8. Simplify $h^3 + 2h^3 + h^3$

…………………

(1 mark)

9. Expand $x(x + 3)$

…………………

(1 mark)

10. Factorise $30x + 15$

…………………

(2 marks)

11. Solve $3x - 1 = 14$

$x =$……………

(2 marks)

12. Show the inequality $-4 \leq x < 3$ on the number line below.

$$\underset{-5 \quad -4 \quad -3 \quad -2 \quad -1 \quad 0 \quad 1 \quad 2 \quad 3 \quad 4 \quad 5 \quad x}{\xrightarrow{\hspace{8cm}}}$$
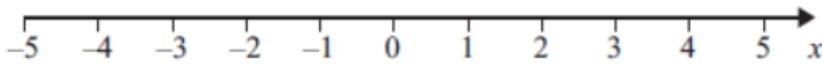
(2 marks)

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

| $x$ | -2 | -1 | 0 | 1 | 2 |
|-----|----|----|---|---|---|
| $y$ |    |    |   |   |   |
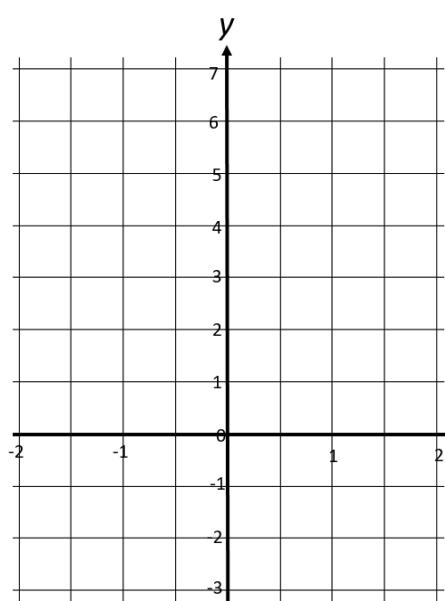
On the grid draw the graph of $y = -2x + 1$

(4 marks)

Score =