

1. Here is an arithmetic sequence.

$$2, 5, 8, 11, 14, 17, 20$$

(i) Write down the next two terms

$$\dots\dots\dots 3n - 1$$

(ii) What is the Nth term

$$\dots\dots\dots 29$$

(iii) What is the 10<sup>th</sup> term in the sequence

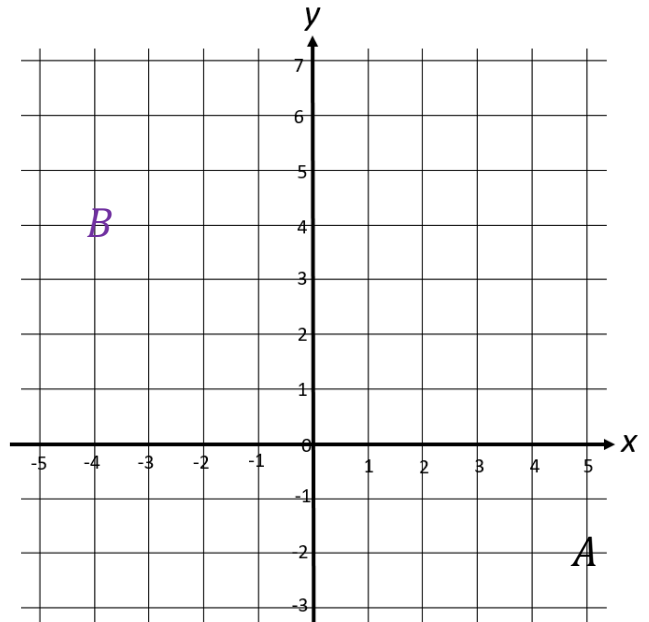
(5 marks)

2.

(a) Write down the coordinate A

$$\dots\dots\dots (5, -2)$$

(b) Plot the coordinate (-4, 6)



(2 marks)

3. Simplify  $3e + 5f - e + 6f$

$$\dots\dots\dots 2e + 11f$$

(1 mark)

4. Simplify  $2 \times n \times n \times 7 \times n$

$$\dots\dots\dots 14n^3$$

(1 mark)

5.  $a = 10$     $b = 1$     $c = -2$

Work out the value of  $a^2 + 5c$

$$\dots\dots\dots 90$$

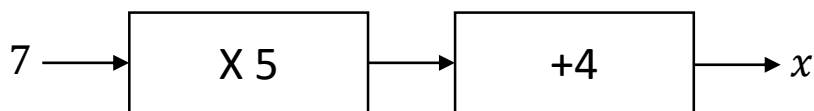
(2 marks)

6. Simplify  $\frac{g^{15}}{g^5}$

$$\dots\dots\dots g^{10}$$

(1 mark)

7. Calculate



$x = \dots\dots\dots 39$   
(1 mark)

8. Simplify  $y \times y \times x \times y$

$\dots\dots\dots xy^3$   
(1 mark)

9. Expand  $4(2x + 5)$

$\dots\dots\dots 8x + 20$   
(1 mark)

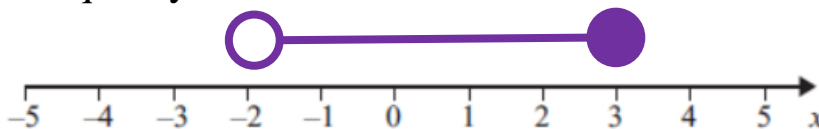
10. Factorise  $20x + 15$

$\dots\dots\dots 5(4a + 3)$   
(2 marks)

11. Solve  $3x + 1 = 13$

$x = \dots\dots\dots 4$   
(2 marks)

12. Show the inequality  $-2 < x \leq 3$  on the number line below.

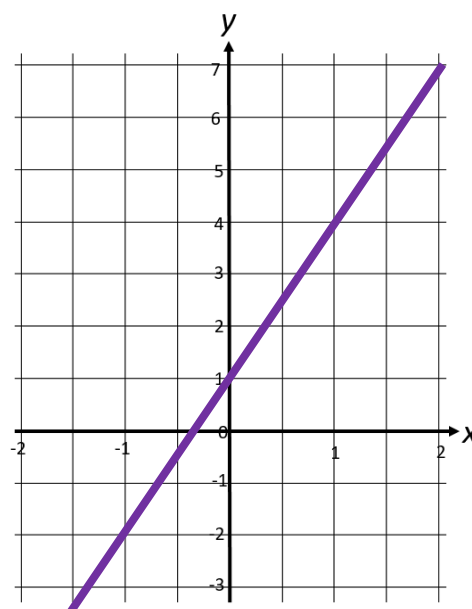


(2 marks)

13. Complete the table of values for  $y = 2x + 3$

$x$	-2	-1	0	1	2
$y$	-1	1	3	5	7

On the grid draw the graph of  $y = 2x + 3$



(4 marks)

Score =