

1. Here is an arithmetic sequence.

$$7, 9, 11, 13, 15, 17, 19, \dots$$

(i) Write down the next two terms

$$\dots\dots\dots 2n + 5 \dots\dots\dots$$

(ii) What is the Nth term

$$\dots\dots\dots 205 \dots\dots\dots$$

(iii) What is the 100th term in the sequence

(5 marks)

2.

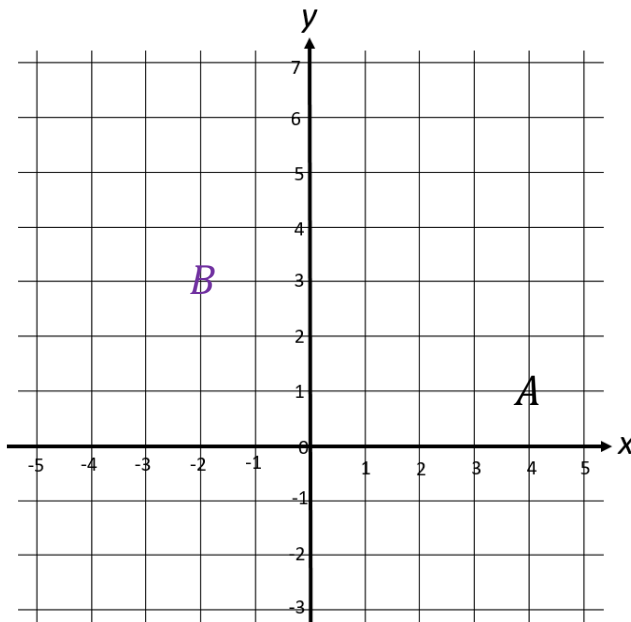
(a) Write down the coordinate A

$$\dots\dots\dots (4, 1) \dots\dots\dots$$

(b) Plot the coordinate B (-2, 3)

(c) Write down the midpoint of AB

$$\dots\dots\dots (2, 3) \dots\dots\dots$$



(4 marks)

3. Simplify $6y + 9y^2 + 3y - 5y^2$

$$\dots\dots\dots 9y + 4y^2 \dots\dots\dots$$

(1 mark)

4. Simplify $7a \times b \times 2c$

$$\dots\dots\dots 14abc \dots\dots\dots$$

(1 mark)

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

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

$$\dots\dots\dots 45 \dots\dots\dots$$

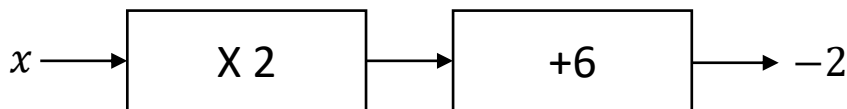
(2 marks)

6. Simplify $(k^5)^4$

$$\dots\dots\dots k^{20} \dots\dots\dots$$

(1 mark)

7. Calculate



$x = \dots\dots\dots -4$
(1 mark)

8. Simplify $5b^3 + b^3 - 2b^3$

$\dots\dots\dots 4b^3$
(1 mark)

9. Expand $x(x - 5)$

$\dots\dots\dots x^2 - 5x$
(1 mark)

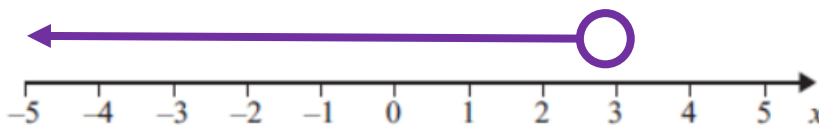
10. Factorise $6x + 16$

$\dots\dots\dots 2(3x + 8)$
(2 marks)

11. Solve $2x - 3 = 17$

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

12. Show the inequality $x + 2 < 5$ on the number line below.

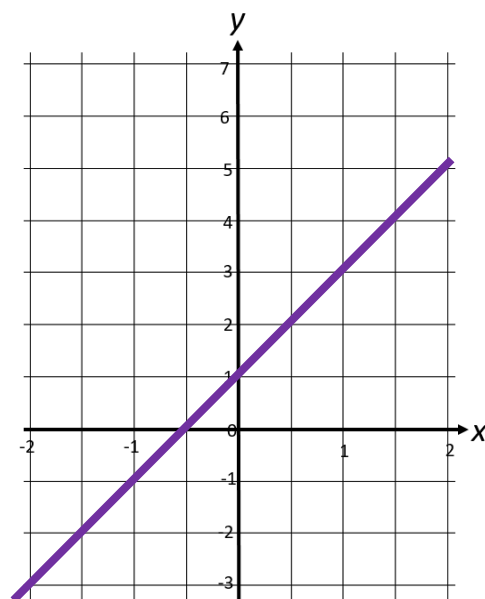


(2 marks)

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

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

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



(4 marks)

Score =