

1. Here is an arithmetic sequence.

$$1, 7, 13, 19, 25,$$

(i) Write down the Nth term.

.....

(ii) What is the 30th term in the sequence?

.....

(3 marks)

2. Coordinate $A = (-2, 5)$ and coordinate $B = (8, 7)$.

Write down the midpoint of AB

.....

(2 marks)

3. Simplify $6x + 3y - 5 + x - 10y - 2$

.....

(2 marks)

4. Simplify $2m^3 + 6m^3$

.....

(1 mark)

5. $a = 5$ $b = 3$ $c = -2$

Work out the value of $ab + 2c$

.....

(2 marks)

6. Simplify $6n^7 \times 8n^{-2}$

.....

(2 marks)

7. Simplify $\frac{24h^{10}}{3h^{-2}}$

.....

(2 marks)

8. Simplify $(10q^{-3})^2$

.....

(2 marks)

9. Simplify $\frac{6a^4 \times 2a^6}{3a^2}$

.....

(2 marks)

10. Expand $8(5 - 6y)$

.....
(1 mark)

11. Factorise $12f - 15$

.....
(2 marks)

12. Expand and simplify. $(x - 6)(x - 5)$

.....
(2 marks)

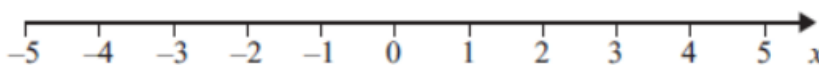
13. Factorise $100 - a^2$

.....
(2 marks)

14. Solve $8x + 5 = 6x + 11$

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

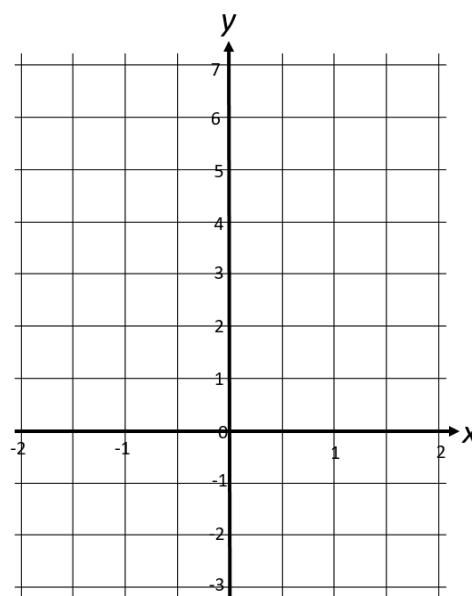
15. Show the inequality $x + 1 < 2$ on the number line below.



(1 mark)

16. Complete the table of values for $y = \frac{1}{2}x + 2$

x	-2	-1	0	1	2
y					



On the grid draw the graph of $y = \frac{1}{2}x + 2$

(4 marks)

Score =