

1. Here is an arithmetic sequence.

$$7, 12, 17, 22, 27,$$

(i) Write down the Nth term.

.....

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

.....

(3 marks)

2. Coordinate $A = (7, 8)$ and coordinate $B = (1, 16)$.

Write down the midpoint of AB

.....

(2 marks)

3. Simplify $4b + 7c + 8 - b + 6c + 13$

.....

(2 marks)

4. Simplify $a^2 + a^2$

.....

(1 mark)

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

Work out the value of $ab + 2c$

.....

(2 marks)

6. Simplify $4h^2 \times 3h^5$

.....

(2 marks)

7. Simplify $\frac{10e^{12}}{2e^2}$

.....

(2 marks)

8. Simplify $(3t^5)^2$

.....

(2 marks)

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

.....

(2 marks)

10. Expand $4(7y + 6)$

.....
(1 mark)

11. Factorise $10p + 8$

.....
(2 marks)

12. Expand and simplify. $(x + 5)(x + 7)$

.....
(2 marks)

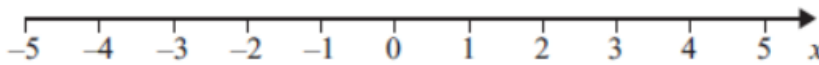
13. Factorise $y^2 - 16$

.....
(2 marks)

14. Solve $3x + 2 = 17$

$x =$
(2 marks)

15. Show the inequality $x < 3$ on the number line below.

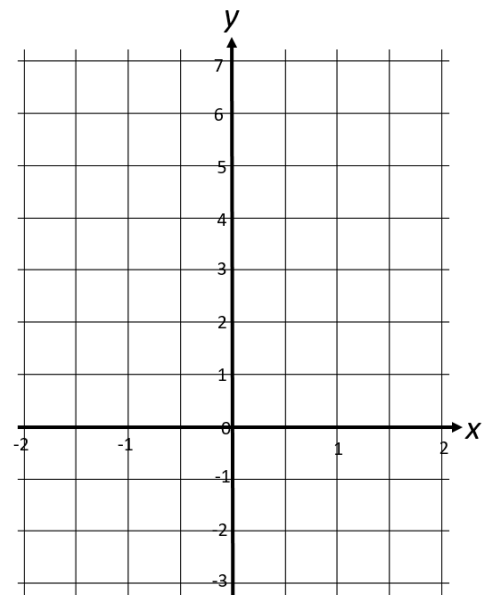


(1 mark)

16. 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 =