

1. Here is an arithmetic sequence.

$$3, 7, 11, 15, 19,$$

(i) Write down the Nth term.

.....

(ii) What is the 50th term in the sequence?

.....

(3 marks)

2. Coordinate $A = (9, 5)$ and coordinate $B = (7, 13)$.

Write down the midpoint of AB

.....

(2 marks)

3. Simplify $5t - 3 + 4u - 6 + 4t - u$

.....

(2 marks)

4. Simplify $4y^2 + 6y^2$

.....

(1 mark)

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

Work out the value of $ab + 2c$

.....

(2 marks)

6. Simplify $7p^6 \times 3p^6$

.....

(2 marks)

7. Simplify $\frac{16g^{15}}{4g^5}$

.....

(2 marks)

8. Simplify $(6e^8)^2$

.....

(2 marks)

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

.....

(2 marks)

10. Expand $6(3 + 8m)$

.....
(1 mark)

11. Factorise $12e - 6$

.....
(2 marks)

12. Expand and simplify. $(x + 2)(x - 9)$

.....
(2 marks)

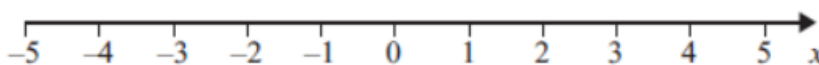
13. Factorise $9 - x^2$

.....
(2 marks)

14. Solve $2x + 2 = x + 12$

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

15. Show the inequality $x > 1$ on the number line below.

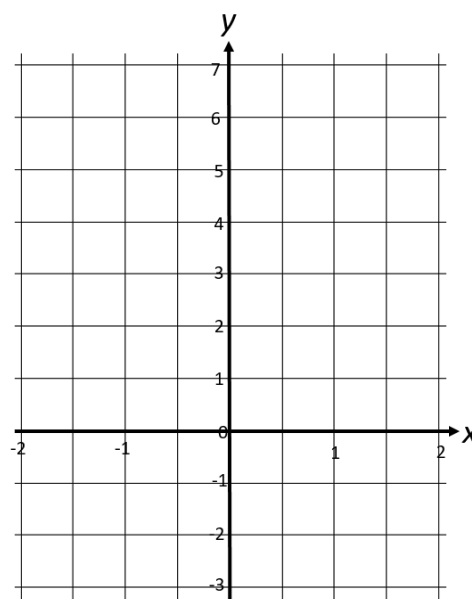


(1 mark)

16. Complete the table of values for $y = 3x + 1$

x	-2	-1	0	1	2
y					

On the grid draw the graph of $y = 3x + 1$



(4 marks)

Score =