

1. Here is an arithmetic sequence.

5, 8, 11, 14, 17,

and the Nth term.

.....

(1) Find the 10th term in the sequence?

.....

(3 marks)

2. Coordinates of point A are (2, 3) and coordinate B = (5, 9).

Write down the gradient of line segment AB.

.....

(2 marks)

3. Simplify  $3a + 6b - 6b$

.....

(2 marks)

4. Simplify  $5m^2 + 3m^2$

.....

(1 mark)

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

Work out the value of  $ab + 2c$

.....

(2 marks)

6. Simplify  $5m^4 \times 6m^5$

.....

(2 marks)

7. Simplify  $\frac{12f^{12}}{4f^3}$

.....

(2 marks)

8. Simplify  $(5r^4)^2$

.....

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

.....

(2 marks)

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10. Expand  $3(6x - 5)$

.....  
(1 mark)

11. Simplify  $4x^2 - 15$

.....  
(2 marks)

12. Expand  $(x + 7)(x - 2)$

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(2 marks)

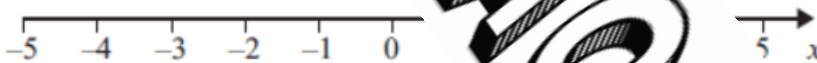
13. Factorise  $m^2 - 16$

account .....  
(2 marks)

14. Solve  $4x + 5 = -11$

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

15. Show the inequality  $x \geq -1$  on the number line below.

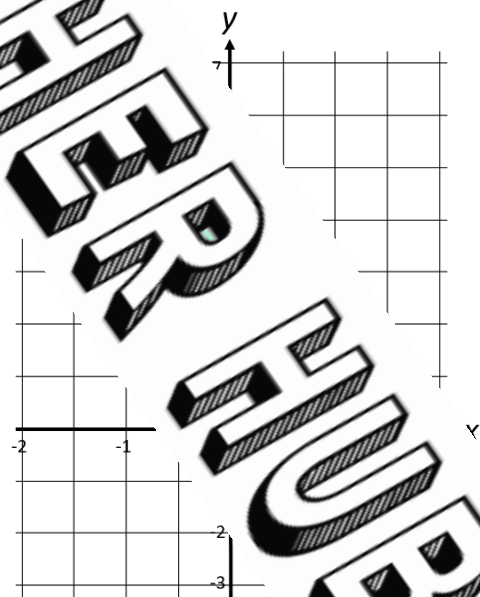


(1 mark)

16. Complete the table of values for  $y = 2x - 1$

|     |    |    |   |   |   |
|-----|----|----|---|---|---|
| $x$ | -2 | -1 | 0 | 1 | 2 |
| $y$ |    |    |   |   |   |

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



(2 marks)

Score =