1. Here is an arithmetic sequence.

$$5, 8, 11, 14, 17,$$

  (i)   Write down the Nth term.

               ………………….

  (ii) What is the 40th term in the sequence?

               ………………….

               (3 marks)

2. Coordinate $A = (7, 3)$ and coordinate $B = (5, 9)$.

   Write down the midpoint of AB

               ………………….

               (2 marks)

3. Simplify $3a + 7 + 2b - 5 + 9a - 6b$

               ………………….

               (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 $\dfrac{12f^{12}}{4f^3}$

               ………………….

               (2 marks)

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

               ………………….

               (2 marks)

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

               ………………….

               (2 marks)

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

....
(1 mark)

11. Factorise $9a + 15$

....
(2 marks)

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

....
(2 marks)

13. Factorise $m^2 - 25$

....
(2 marks)

14. Solve $4x + 5 = -3$
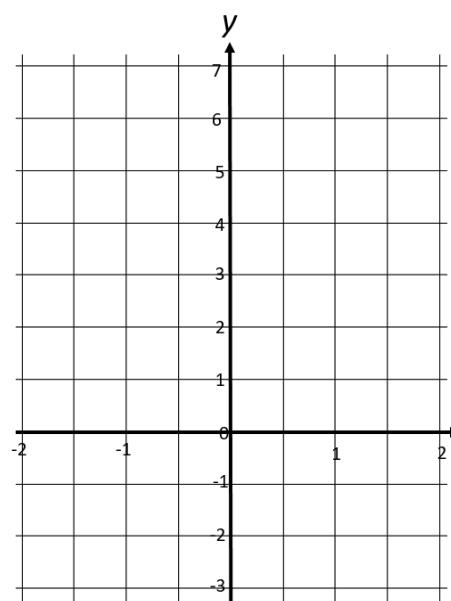
$x =$..............
(2 marks)

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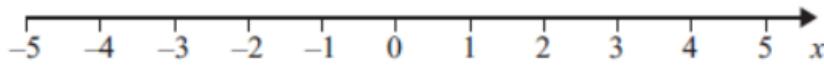
(1 mark)

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

x	-2	-1	0	1	2
y					

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

(4 marks)

Score =