Higher Homework 19 : Algebra

1. Here is a quadratic sequence.

$5 , 14 , 27 , 44 , 65 ,$

(a) Find an expression for the Nth term.

.....

(3 marks)

2. Coordinates of point $A = (3 , 7)$ and coordinate $B = (x , y)$.
The midpoint of $AB = (7 , 7)$
Write down the coordinates of B.

.....

(2 marks)

3. Simplify $-2a^2 \times a^2 + 6a^4$

.....

(2 marks)

4. Simplify $8m^3 - 5m^3$

.....

(1 mark)

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

Work out the value of $ab + 2c$

.....

(2 marks)

6. Simplify $7p^6q^{-2} \times 7p^3q^5$

.....

(2 marks)

7. Simplify $\dfrac{36d^{-4}e^{10}}{9d^6e^4}$

.....

marks)

8. Simplify $(5t^{-6})^3$

.....

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

.....

(2 marks)

10. Expar $2ab(6a - 4b)$

.....
(2 marks)

1. $+ 24y$

.....
(2 marks)

12. Exp $(2x + 1)(2x + 3)$

.....
(2 marks)

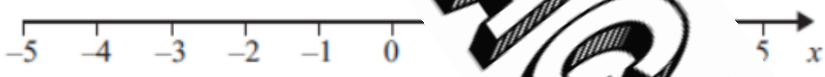
13. Factorise $2x$

.....
(2 marks)

14. Solve $4x + 1 = c$

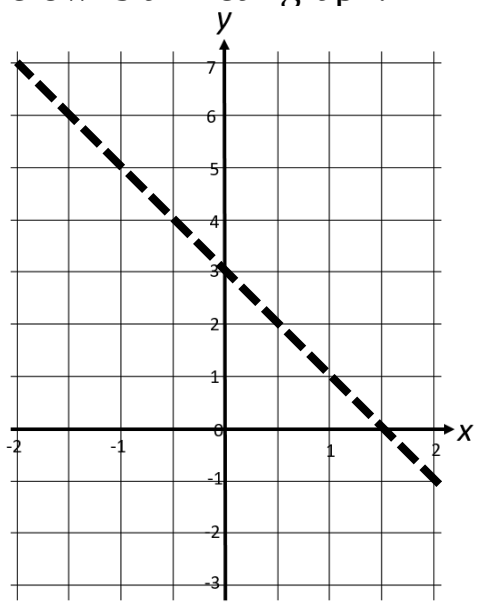
$x =$.....
(2 marks)

15. Show the inequality $1 < x +$ nber line below.



(2 marks)

16. Below is a linear graph.



(i) Writ nt.

...

(ii) Write dow.

... ...

(iii) Write down the e .

... ...

arks)

Score =