Foundation Homework 14 : Algebra

1. Here is an arithmetic sequence.

$$7\ ,12\ ,17\ ,22\ ,27\ ,\ldots,\ldots$$ 32,37

(i) Write down the next two terms

(ii) What is the rule

(iii) What is the Nth term

$Add\ 5$

$5n + 2$

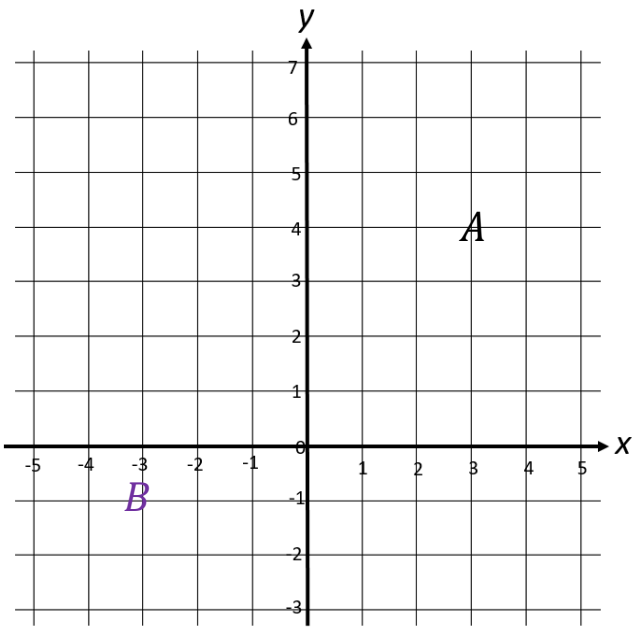
(3 marks)

2.

(a) Write down the coordinate A

$(3\ ,4\ )$

(b) Plot the coordinate (-3, -1)



(2 marks)

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3. Simplify $2a + 3b + a + 4b$

$3a + 7b$

(1 mark)

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4. Simplify $4 \times r \times r \times 7 \times s$

$28r^2s$

(1 mark)

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

Work out the value of $5a + 2c$

11

(2 marks)

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6. Simplify $\dfrac{f^{10}}{f^2}$

f^8

(1 mark)

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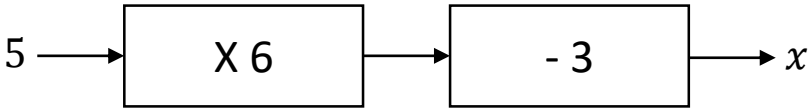
7. Calculate



$x =$ 27

(1 mark)

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8. Simplify $a \times a \times b \times b \times b$

a^2b^3

(1 mark)

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9. Expand $3(2x + 4)$

$6x + 12$

(1 mark)

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10. Factorise $15a - 5$

$5(3a - 1)$

(2 marks)

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11. Solve $3x = 24$

$x =$ 8

(1 mark)

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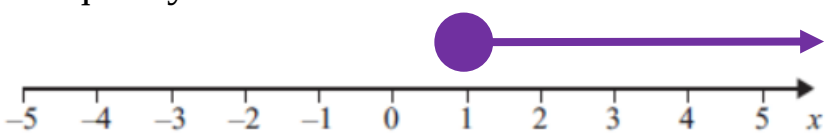
12. Show the inequality $x \geq 1$ on the number line below.



(1 mark)

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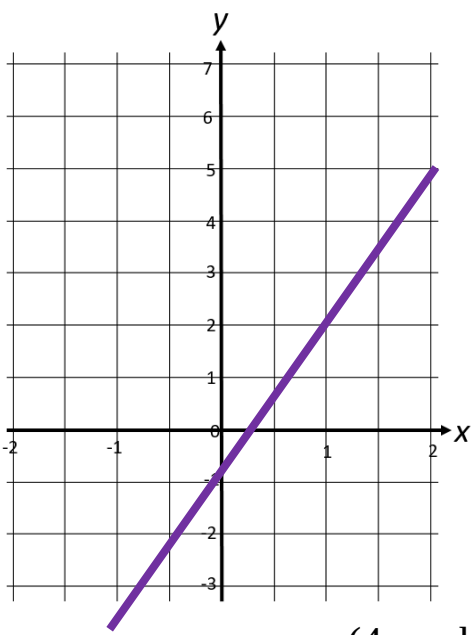
13. Complete the table of values for $y = 3x - 1$

x	-2	-1	0	1	2
y	-7	-4	-1	2	5

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



(4 marks)

Score =