

Straight Line Graphs



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(i) Factorise

(i) $x^2 - 2x - 15$,

$$(x-5)(x+3)$$

[2]

(ii) $6x^2 - 8xy$.

$$2x(3x-4y)$$

[2]

①

Find the equation of the line that passes through the points $(0, 8)$ and $(-2, 2)$.

$$y = mx + c$$

$$m = \frac{\text{change in } y}{\text{change in } x} = \frac{-6}{-2} = +3$$

$$y = 3x + c$$

$$(0, 8) \quad 8 = 3 \times 0 + c$$

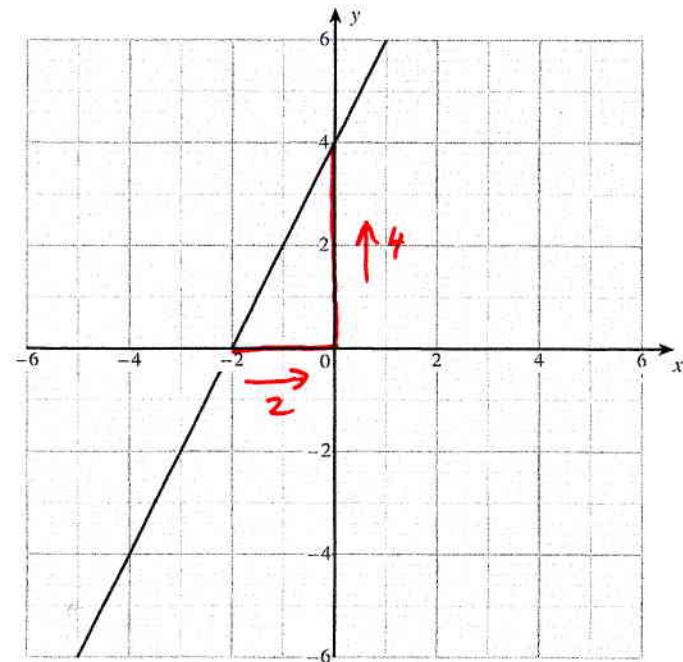
$$c = 8$$

$$\therefore y = 3x + 8$$

[4]

②

Write down the equation of the straight line shown in the following diagram in the form $y = mx + c$.



$$c = 4 \quad m = \frac{4-2}{0-(-2)} = 2$$

Equation of the straight line is $y = 2x + 4$

[3]

Turn over.

(08501)

Turn over.

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