2.16 Straight Line Graphs: y = mx + c: 10-minute Pack

Calculators not allowed · about 10 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A line through (0, -3) and (2, 1) is drawn. Find its equation in the form y = mx + c.

(2)

2 A straight line passes through points A(-2, 0) and B(2, 4). Work out the equation of the line in the form y = mx + c.

(3)

3 Complete a table of values for y = 4x - 3 for x = -2, x = -1 and x = 1.

(2)

4 A line has equation y = 2x + 1. State the gradient and the y-intercept.

(1)

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Mark scheme · 2.16 Straight Line Graphs: y = mx + c: 10-minute Pack

Question 1

Find gradient: (1 - (-3))/(2 - 0) = 4/2 = 2 or equivalent	**M1**
y = 2x - 3 cao	**A1**

Answer: **y = 2x - 3**

Question 2

Use gradient formula: (4 - 0)/(2 - (-2)) or equivalent	**M1**
Find gradient m = 1	**M1**
Substitute to find c = 2 and give equation y = x + 2 cao	**A1**

Answer: **y = x + 2**

Question 3

at least one value of y correct	**M1**
all three values correct	**A1**

Answer: **x = -2: y = -11, x = -1: y = -7, x = 1: y = 1**

Question 4

Gradient = 2 and y-intercept = 1 (or stated as (0, 1)) cao	**B1**

Answer: **gradient 2, y-intercept 1**

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