Nelson Maths 9 for the CSF II
Homework and Assessment Sheets

Sketching linear graphs   AL 9-4

Name: _____   Class: _____

Due date: _____   Parent's signature: _____

Level 5	/10	Level 6	/20

Part A: Level 5

Name the positions labelled A to C as ordered pairs.

1 $A = ($ _____ , _____ $)$

2 $B = ($ _____ , _____ $)$

3 $C = ($ _____ , _____ $)$

On the same axes, plot these points.

4 $E = (^-4, ^-4)$

5 $F = (2, ^-3)$

6 $G = (^-2, 0)$

7 to 10 Plot a graph of $y = 1 - 2x$ by completing the table below (2 marks) and plotting the values as ordered pairs (2 marks).

x	$^-3$	$^-2$	$^-1$	0	1	2	3
y							

Part B: Level 6

Each week I make 20 cakes and take them to my stall at the market to sell them. The amount of money I make each week depends on the number of cakes I sell. I have kept records of sales over the last 6 weeks. The table shows the results.

Cakes sold	20	18	16	14	12	10
Profit	50	42	34	26	18	10

1 to 3 Choose an appropriate scale (1 mark) and plot this data on the axes provided (2 marks).

4 What is the price of a cake? _____

5 How much does it cost to make the cakes? _____
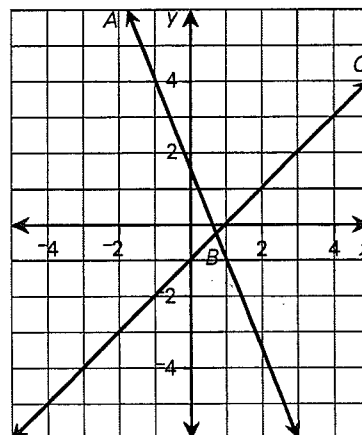
6 How many cakes must be sold to 'break even'? _____

Find the gradient (m), the y-intercept (c) and the equation of the lines.

Line $\overleftrightarrow{AB}$

7 $m =$ _____ **8** $c =$ _____ **9** $y =$ _____

Line $\overleftrightarrow{BC}$

10 $m =$ _____ **11** $c =$ _____ **12** $y =$ _____

For the line $3y - 2x = 12$, do the following.

13 Find the y-intercept. _____

14 Find the x-intercept. _____

15 Sketch the line.
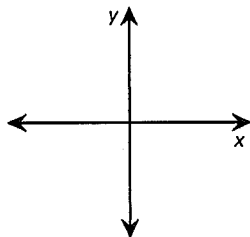
For the line $y = 2x - 5$, do the following.
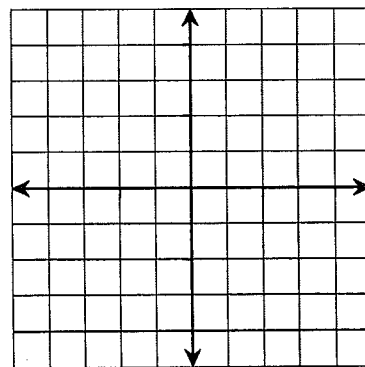
16 Find the gradient. _____

17 Find the y-intercept. _____

18 Sketch the line.
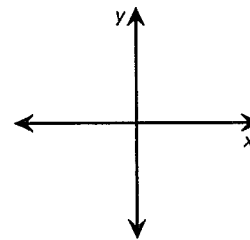
19 Draw a sketch diagram showing the position of the points $A(^-2, ^-1)$ and $B(2, 3)$.

20 Find the gradient of the line joining the points A and B. _____

Puzzler

There is only one solution to the equation $x^y = y^x$.

Can you find the numbers and explain why there is only one solution?

Vocabulary

Write the mathematical meaning of:

Gradient _____

Intercept _____