## Nelson Maths 9 for the CSF II Homework and Assessment Sheets

## Simultaneous equations

AL 9-5

Name: \_\_\_\_\_ Class: \_\_\_\_

Due date: \_\_\_\_\_ Parent's signature: \_\_\_\_

Level 5 /10				)	Level 6									/20												

## Part A: Level 5

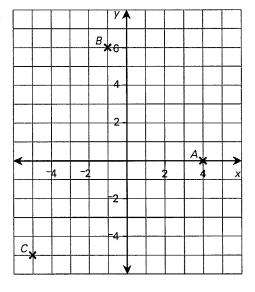
Name the positions labelled *A* to *C* as ordered pairs (and label).

On the axes shown, plot the points (and label).

**4** 
$$E = (2, -4)$$

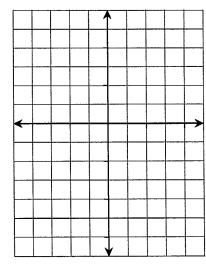
**5** 
$$F = (-3, 2)$$

**6** 
$$G = (0, -3)$$



**7** to **10** Plot a graph of y = 3x - 2 by completing the table below (2 marks) and plotting the values as ordered pairs (2 marks).

х	-3	-2	-1	0	1	2	3
у							



## Part B: Level 6

Transform the following equations to make y the subject in each case.

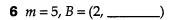
1 
$$3x + 2y = 9$$

**2** 
$$9x - 3y = 12$$

On the axes drawn sketch each of the following lines.

- **3** 3y + x = 17
- **4** y = 2x + 1
- **5** Write the point of intersection as an ordered pair.

Find the point B(2, ?) which is joined to A(0, 0) by a straight line with each of these gradients.

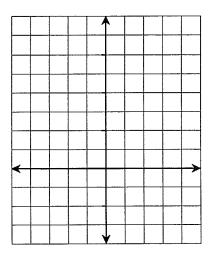


7 
$$m = -3$$
,  $B = (2, ____)$ 

**8** 
$$m = \frac{-3}{2}$$
,  $B = (2, ___)$ 

**9** to **13** Find the point of intersection of these two lines using the method of substitution (5 marks).

$$y = x - 3$$
 and  $3x + 2y = 14$ 



14 to 18 Find the point of intersection of these two lines using the method of elimination (5 marks).

$$2x + y = 15$$
 and  $6x - 2y = 10$ 

Write a pair of equations for each of these number problems.

**19** A pair of numbers *x* and *y*, such that their sum is 20 and their difference is 6

**20** A pair of numbers *n* and *m* such that their difference is 2 and when the first number is tripled and added to the second, the answer is 6


An ice cube will melt in 50 minutes at 3°C, 30 minutes at 5°C and 25 minutes at 6°C.

How long will it take to melt at 10°C?

Vocabulary

Write the mathematical meaning of:

Elimination

Simultaneous .