

1 Find the following when i)  $x = 1$ , ii)  $x = 3$ , iii)  $x = 0$  and when iv)  $x = -2$

- a)  $x + 2$     b)  $x - 3$     c)  $2x$     d)  $2x + 4$     e)  $3x$     f)  $3x - 1$

2 Draw axes  $x$  and  $y$  for the values  $-6$  to  $6$

On this one set of axes, draw the following lines

- a)  $x = 4$     b)  $y = -6$     c)  $x = -2$     d)  $y = 0$

3 Complete individual tables for the following equations for the values of  $x$  from  $-2$  to  $4$

to find the values of  $y$

a)  $y = x + 1$

x	-2	-1	0	1	2	3	4
y				2			5

b)  $y = 2x$

x	-2	-1	0	1	2	3	4
y		-2				6	

c)  $y = 2x - 4$

x	-2	-1	0	1	2	3	4
y	-8						4

d)  $y = 3x + 1$

x	-2	-1	0	1	2	3	4
y		-2			7		

e)  $y = x/2$

x	-4	-2	0	2	4	6	8
y	-2			1			

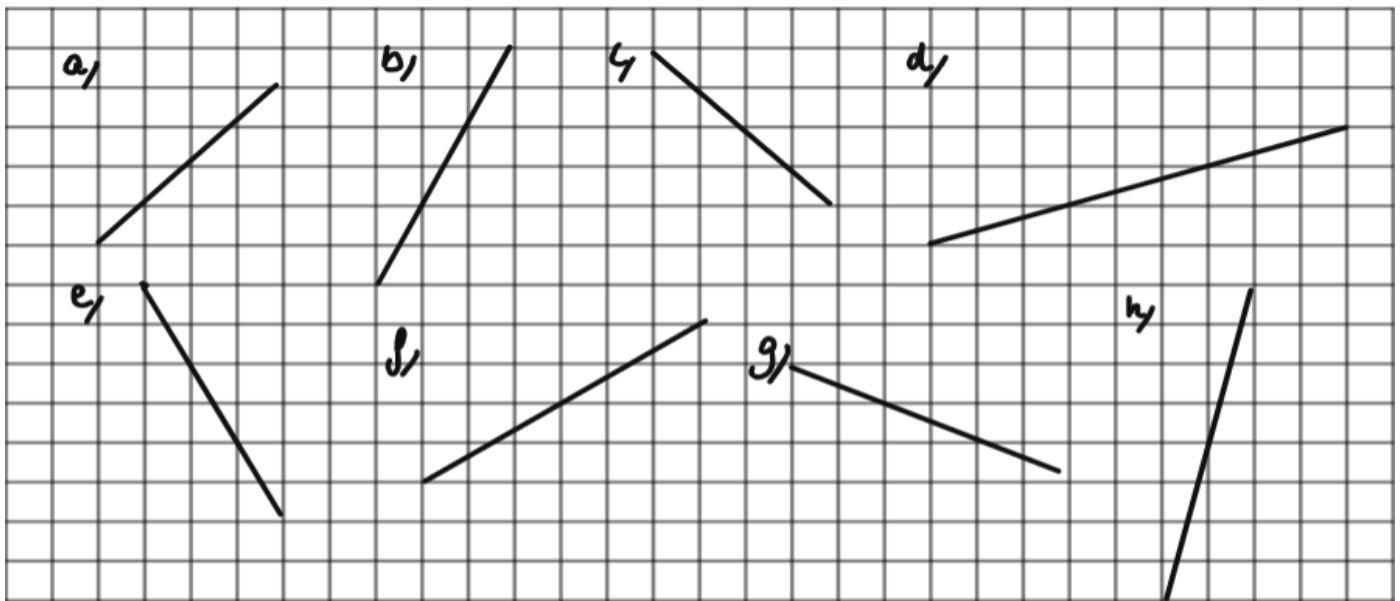
f)  $y = 4x - 5$

x	-1	0	1	2	3	4
y	-9		-1		7	

4 For each of the equations above draw appropriate  $x$  and  $y$  axes and plot the coordinates you have created. Then join up the coordinates to form a straight line.

5 Remember when  $y = mx + c$      $m =$  the gradient    and  $c =$  the  $y$  intercept  
For the equations in question 3 state each one's gradient and  $y$  intercept

6 Find the gradients of the following lines

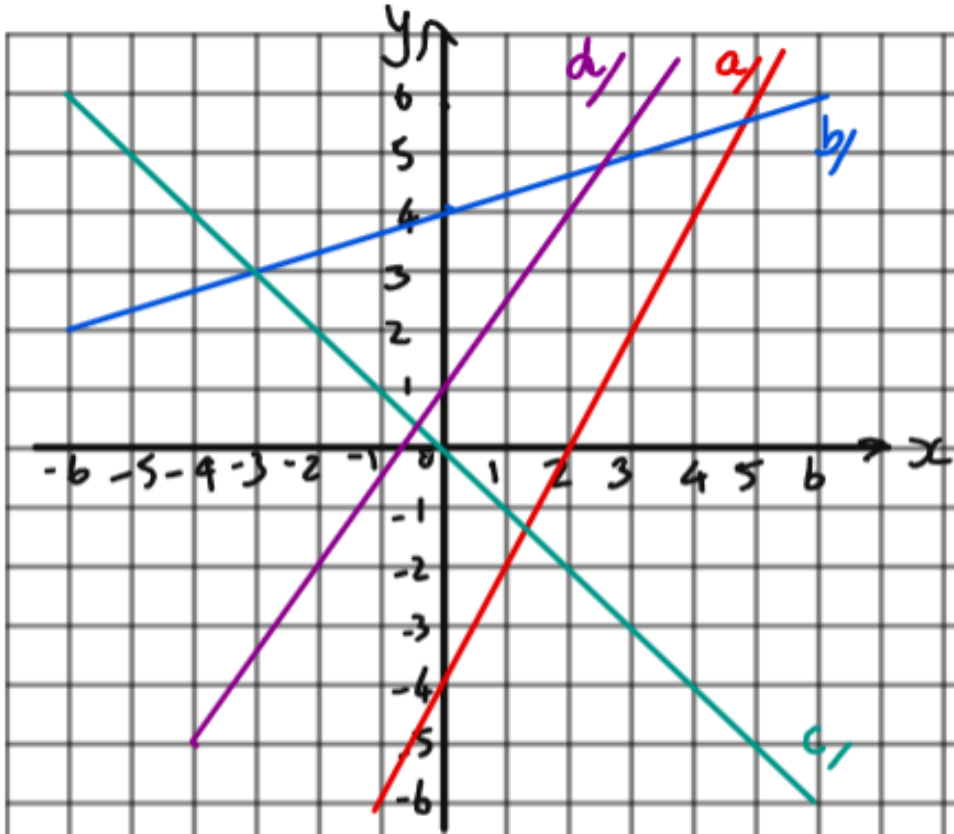


7 Sketch the following lines using your knowledge of their gradients and  $y$  intercepts

( sketch means you don't have to fully label set of axes, you may even put them on one set of axes)

- a)  $y = x$     b)  $y = x - 3$     c)  $y = 2x - 1$     d)  $y = -x + 5$     e)  $y = 1/2x + 3$

- 8 For the following lines, work out the gradient and the y intercept of each line  
Hence work out the equation of each line



- 9 Find the gradients of the lines joining the 2 coordinates

a) (0, 0)(2, 4)    b) (1, 3)(6, 8)    c) (3, 8)(0, 2)    d) (2, -4)(4, 2)    e) (-4, 5)(0, -3)

- 10 Rearrange these equations to make y the subject

a)  $y - x = 5$     b)  $y - 7 = 2x$     c)  $2y + 4 = 6x$     d)  $3y - 9x = 12$     e)  $2y + 4x = 18$