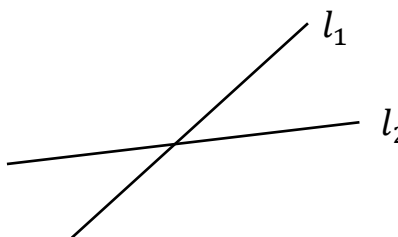


## Year 08 Weekly Tutorial - 19

mathsalpha.com

1. Solve;  $\frac{2x+5}{2} = 3(x-7)$

2. Make  $x$  the subject;  $y = 2\sqrt{\frac{3x+5}{2}}$

3.   $l_1 \equiv 2x + 3y - 5 = 0$   
 $l_2 \equiv 3x + y + 2 = 0$

Find the coordinates at intersection point of line  $l_1$  and  $l_2$ .

4.

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

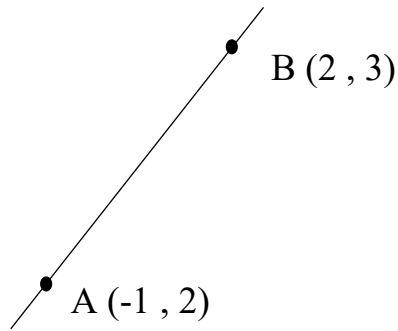
- a) Complete the table to draw the graph of the straight line,  $y = 2x - 5$   
 b) Draw the graph of  $y = 2x - 5$ .  
 (Please use a graph paper)

5.

$x$	-3	-2	-1	0	1	2
$y$	9		-5			4

- a) Complete the above table to draw the graph of the quadratic function,  
 $y = 2x^2 + x - 6$   
 b) Draw the graph of  $y = 2x^2 + x - 6$ .  
 (Please use a graph paper)  
 c) Write roots and  $y$ -intercept of the quadratic function,  $y = 2x^2 + x - 6$ .

6.



Find the equation of straight line passes through points A (-1 , 2) and B (2 , 3).

7. Solve by factorization.

a)  $x^2 + 3x - 28 = 0$

b)  $6x^2 - 13x + 6 = 0$

8. Zack invests £ 12 000 in a bank which gives 2.1% compound interest per annum. After how many years Zack's investment will exceed £ 12 500?
9. The salaries of Sarah and Beth are in a ratio 4: 5. Sarah gets a 25%, while Beth gets a 10% salary increase. After the salaries increase, new ratio of Sarah's and Beth's salaries are 10: 11. Sarah's new salary is £ 2 520. Find Beth's new salary.
10. The population of a town increased by 2% last year and it is expected to be decreased by 1% this year to 30 294. What was the original population of the town before it increased by 2% last year?