



## Year 08 Weekly Tutorial - 18

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1. Factorize.

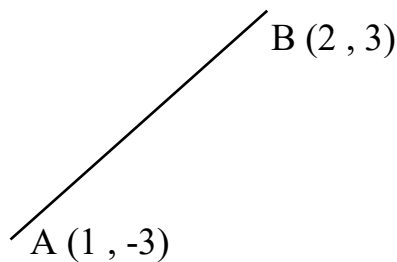
a)  $2x^2 - 50$

b)  $x^2 - 3x - 40$

c)  $3x^2 + 2x - 5$

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

3.



a) Find the coordinates at mid-point of line  $AB$ .

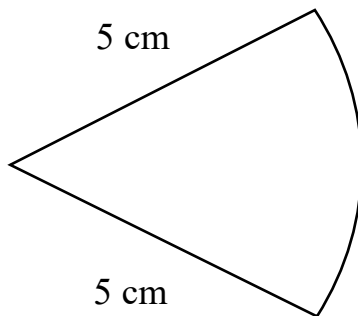
b) Find the length  $AB$ .

c) Find the equation of the line  $AB$ .

4. Solve and show the solution on the number line,

$$2(x - 7) \leq x - 12$$

5.



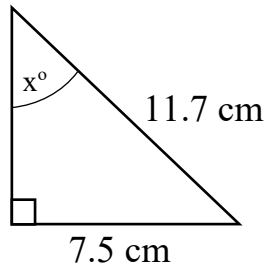
The area of the sector is  $9 \text{ cm}^2$ .  
Calculate the perimeter of the sector.  
Give your answer correct to 3 sf.

6. Ann and Ben shared some money between them in a ratio, 3:5. Ben get £ 80 more Work out the amount of money that Ben get.

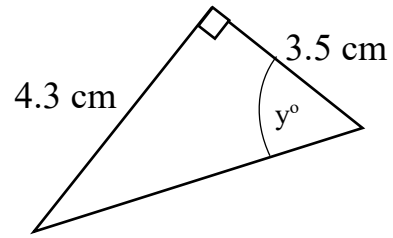
7. Mark invests £ 6 000 in a bank which gives 2.5% compound interest per annum. After how many years Marks get more than £ 6 500 in his account.

8. Find the unknown angles.

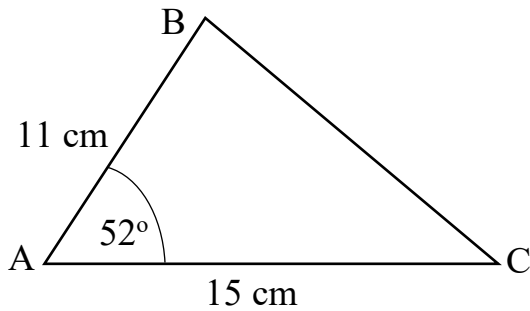
a)



b)

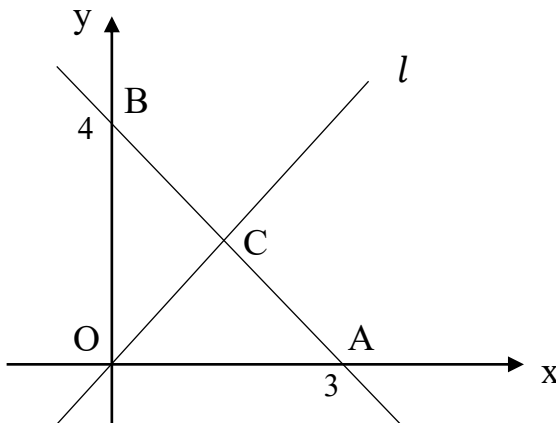


9.



Find the area of the triangle ABC. (Note – ABC  $\ntriangleleft$  is not a right angle.)

10.



Straight line  $l$  and  $AB$  intersect at point  $C$ . And it is passing through the origin,  $O$ .

a) Find the equation of line  $AB$ .

b) Line  $l$  has gradient 3. Find the equation of line  $l$ .

c) Find the coordinates at point  $C$ .