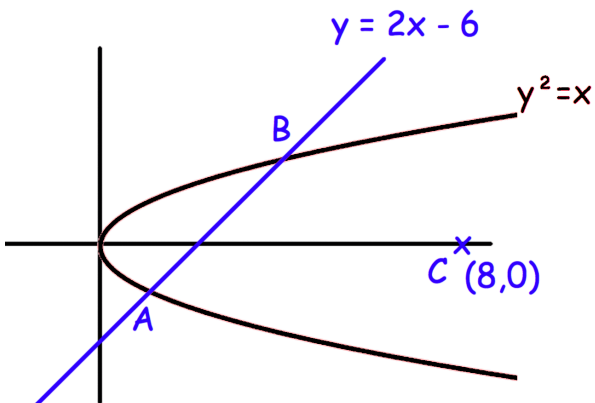




A circle with equation  $x^2 + y^2 = 36$ .  
 The line L1 is a tangent to the circle at the point (0, 6).  
 The line L2 passes through the points  $(-\frac{3}{4}, 1)$  and  $(4, \frac{1}{4})$   
 The lines L1 and L2 intersect at the point C.

Find the coordinates of point C



Shown below is the curve  $y^2 = x$  and the line  $y = 2x - 6$   
 The curve and the line meet at the points A and B  
 The point C is (8, 0)

Show ABC is a right angled triangle

There are 8 counters in a bag.  
 5 of the counters are red  
 3 of the counters are white.  
 Tom takes at random three counters from the bag.

Work out the probability that the counters are not all the same colour.

Find the nth term of the sequence

4 11 22 37 56