

**8th April**

Corbettmaths

Solve  $7x^2 - 22x + 16 = 0$ 

Given  $n$  is a positive even integer,  
prove that  $3n^2 + 6n$  is divisible by 12

A curve has equation  $y = x^2(5 - x)$ 

Find the gradient of the normal to the  
curve at the point  $(1, 4)$

The coefficient of the  $x^3$  term in the  
expansion of  $(2x + a)^5$  is 1280

Find the possible values of  $a$

The line  $L$  has equation  $5x - 2y + 17 = 0$ 

The line  $L$  intersects the  $x$ -axis at the point  
 $A$ . The line  $L$  intersects the  $y$ -axis at the  
point  $B$ .

Find the distance between the points  $A$  and  
 $B$ .