

**2nd February**

Corbettmaths

Factorise  $3x^2 - 17x + 10$ AB is a diameter of a circle C.  
Q is the centre of the circleA has coordinates  $(-4, 1)$  and B has  
coordinates  $(6, 9)$ .

Find the equation of C

Given that

$$(x + a)^2(x - 2) \equiv x^3 + bx^2 + 12x - 72$$

Find the values of  $a$  and  $b$ Work out the equation of the normal to  
the curve  $y = (x + 1)(x + 7)$   
at the point where  $x = -5$