

**15th June**

Corbettmaths

Given that

$$f(x) = \frac{1}{x}$$

Sketch the graph of  $y = f(x) + 2$ 

Factorise fully

$$4y^2 - 400$$

Factorise

$$9 - x^2$$

Solve the simultaneous equations

$$x^2 + y^2 = 1$$

$$2y - x = -1$$

Prove

$$S_n = \frac{n}{2} [2a + (n-1)d]$$

The curve C has equation  $y = f(x)$ ,  $x \neq 0$ , and the point A (2, 5) lies on C.  
Given

Find the equation of the tangent to C at the point A.