

**26th December**

Corbettmaths

Simplify fully  $\frac{a^8}{a^3 \times a^{-9}}$

$$f(x) = x + 9$$

$$g(x) = 5x - 1$$

Find  $gf(x)$

Factorise  $5x^2 - 13xy - 6y^2$

A curve has the equation  
 $y = x^3 + ax^2 - 8$  where  $a$  is a  
constant.

The gradient of the curve when  $x = 2$  is  
eleven times the gradient of the curve  
when  $x = -2$

Work out the value of  $a$