

11th June

Corbettmaths

$f(x) = (x + 5)(x + 9)$ for all values of x

Write down the range of $f(x)$

P is a point on the curve $y = x^2 - 9x$

The tangent to the curve at P has gradient -1 .

Work out the coordinates of P.

$$\mathbf{A} = \begin{pmatrix} 4 & -3 \\ -2 & 0 \end{pmatrix} \quad \mathbf{B} = \begin{pmatrix} -1 & 1 \\ -4 & 2 \end{pmatrix}$$

$$\mathbf{C} = \begin{pmatrix} -5 \\ 7 \end{pmatrix}$$

Work out the matrix **ABC**

Prove that

$$\frac{1}{\tan x} + \tan x \equiv \frac{1}{\sin x \cos x}$$