

22nd August

Corbettmaths

Show that

$$2\sin^2\theta \equiv 2 - 2\cos^2\theta$$

Using the digits 3, 4, 5, 6, 7 and 9, how many numbers greater than 70000, without any repeated digits, can be made?

Given that $y = 5x - x^2$

Work out the coordinates of the point at which the gradient of the curve is -1

$$\mathbf{A} = \begin{pmatrix} 3 & -2 \\ 5 & 1 \end{pmatrix} \quad \mathbf{B} = \begin{pmatrix} -7 & 1 \\ 0 & 4 \end{pmatrix}$$

Work out **AB**Work out **BA**