29th December

Corbettmaths

Barry buys 200 pieces of stationery for £76.

Of the 200 pieces of stationery, x of them are rulers that cost 50p each and y of them are pens that cost 20p each.

Find how many rulers Barry buys and how many pens he buys.

A $= \begin{pmatrix} 3 & -2 \\ 4 & 1 \end{pmatrix}$ **B** $= \begin{pmatrix} -3 \\ 5 \end{pmatrix}$

Work out the matrix **AB**

$$y = \frac{3x^4 + 8x}{2x}$$

Work out the possible values of x when $\frac{dy}{dx} = 882$

Prove that every term in the sequence $n^2 - 12n + 40$ is positive