

22nd November

Corbettmaths

Factorise fully

$$18xy^4z - 24x^2y^2z^2 + 12x^3y^3z$$

$$y = 2x^3 - 9x^2 + 12x - 9$$

Work out $\frac{dy}{dx}$

Hence, work out the coordinates of the stationary points of

$$y = 2x^3 - 9x^2 + 12x - 9$$

$$\begin{pmatrix} 2 & y \\ x & -12 \end{pmatrix} \begin{pmatrix} x \\ 2 \end{pmatrix} = \begin{pmatrix} 7 \\ 5x \end{pmatrix}$$

Work out the possible values for x and y