

25th March

Corbettmaths

The n th term of a sequence is

$$\frac{2n - 9}{8n}$$

Write down the limiting value of the sequence $n \rightarrow \infty$

$$4 \begin{pmatrix} -5 & -2 \\ 3 & 2 \end{pmatrix} \begin{pmatrix} 4 \\ -1 \end{pmatrix} = \begin{pmatrix} p \\ q \end{pmatrix}$$

Find p and q Factorise $6x^2 - 35xy + 49y^2$ Work out the rate of change of y with respect to x at the point on the curve

$$y = \frac{3}{x^2} \text{ where } x = 1$$

Find the equation of the tangent to the circle with equation

$$(x - 5)^2 + (y + 2)^2 = 25$$

at the point $(2, 2)$