

24th March

Corbettmaths

Solve $2x^2 - x - 6 = 0$

A headteacher wants to survey two Year 7 students. There are 100 students in Year 7.

How many possible pairs of students can the headteacher pick?

The transformation matrix

$$\begin{pmatrix} p & q \\ 2p & 5q \end{pmatrix}$$

maps the point $(-1, -2)$ to the point $(-1, 16)$.

Find p and q

The coefficient of the x^3 term in the expansion of $(x + a)^4$ is 32

Work out the value of a

Point A lies on the curve
 $y = (x + 2)(x - 7)$

The x-coordinate of A is 9

Find the equation of the normal to the curve at A.