

18th December

Corbettmaths

Work out the range of values of x for which

$$x^2 - 2x - 63 \leq 0$$

$f(x) = 200 - x^3$ for all values of x .

Solve $f(2x) = 15$

The expansion of $(2 + ax)^5$ in ascending powers of x , as far as x^2 is

$$32 + bx + 720x^2$$

Given a is positive, find the values of a and b .

The point $(3, a)$ is invariant when transformed by the matrix

$$\begin{pmatrix} 6 & -2 \\ -5 & 3 \end{pmatrix}$$

Find a