

29th August

Corbettmaths

A curve has gradient function

$$\frac{dy}{dx} = 7x^2 - 4$$

Work out the values of x for which the rate of change of y with respect to x is 59

How many odd numbers less than 50,000 can be formed using the digits

3 4 5 8 9

with no repetition of any digit?

$f(x) = x^2 - 4x + 7$ for all values of x

State the range of $f(3x)$

The n th term of a sequence is $\frac{5n^2 + 5}{6n^2 - 1}$

Find the limiting value of $\frac{5n^2 + 5}{6n^2 - 1}$ as $n \rightarrow \infty$

Given that

$$(ax + b)(x + 4)(x + c) \equiv 2x^3 + 19x^2 + 49x + 20$$

Find the values of a , b and c