

16th June

Corbettmaths

A line passes through the point
(-2, 4) and has gradient $-\frac{3}{4}$

Find where the line crosses the
x-axis.

Find the set of values of x for which

$$2x^2 - 7x + 3 < 0$$

and

$$4(x + 5) < 2(3x + 5)$$

The third term of an arithmetic progression
is 45.

The 20th term of the progression is 164.

Find a and d.

The curve C has equation $y = x^3 + 2x + 1$

The point P lies on C and has coordinates
(2, 13)

The tangent to C at P, meets the line
 $y = x + 1$ at the point D.

Find D

Find

$$\int \frac{(3 - \sqrt{x})^2}{\sqrt{x}} dx$$