

**29th May**

Corbettmaths

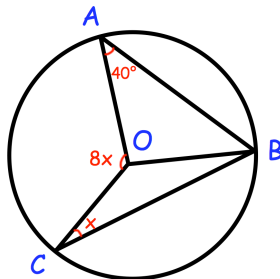
The first five terms of a sequence are shown below.

$$-9, -4, 3, 12, 23 \dots$$

Work out an expression for the  $n$ th term of the sequence

Make  $c$  the subject of

$$\frac{3}{abc} = 6 + \frac{5}{a}$$



Find  $x$

Given  $(x - 1)$  is a factor of  $3x^3 - 15x^2 + ax + a$

Find the value of  $a$

A curve has equation  $y = 20 + 3x^2 - 4x^3$

Find the values of  $x$  for which  $y = 20 + 3x^2 - 4x^3$  is an increasing function.