

6th September

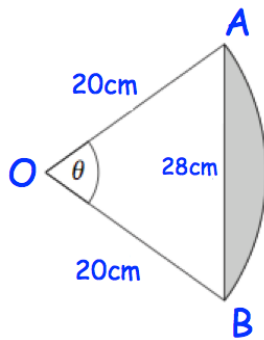
Corbettmaths

A bag contains 4 red, 5 black and 2 white discs.
 A disc is taken, at random, from the bag and not replaced.
 A second disc is then taken, at random, from the bag.

Calculate the probability that the discs are different colours.

Write as a single fraction

$$\frac{x^3 - x}{x + 2} \div \frac{x^2 - x}{x^2 - 5x - 14}$$



Find the size of the angle θ .

The diagram shows a triangle OAB and the arc AB of a circle whose centre is O and whose radius is 20cm.

Find the area of the shaded segment to the nearest cm^2 .

Write in the form $a(x + b)^2 + c$

$$3x^2 - 12x + 2$$