

25th May



Corbettmaths

Work out

$$4^{-\frac{5}{2}}$$

$$\sqrt{4} = 2$$

$$2^5 = 32$$

$$\frac{1}{32}$$

Show using algebra

$$1.0\dot{2}\dot{4} = 1\frac{4}{165}$$

$$x = 1.02424$$

$$10x = 10.2424$$

$$100x = 102.4242$$

$$1000x = 1024.2424$$

$$990x = 1014$$

$$x = \frac{1014}{990}$$

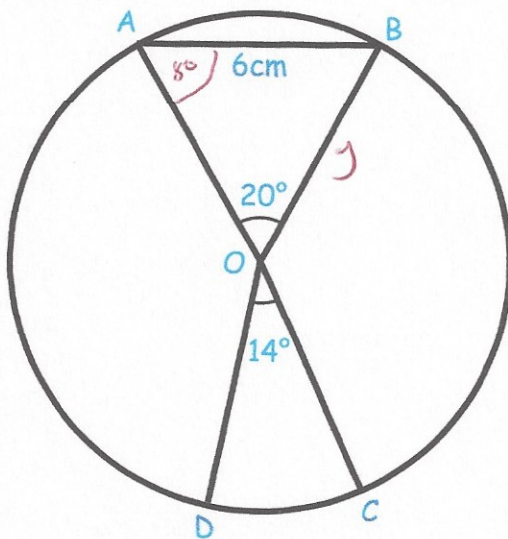
$$= 1\frac{4}{165}$$

Rationalise the denominator

$$\frac{2 - \sqrt{3}}{\sqrt{2} - 1}$$

$$\frac{(2 - \sqrt{3})(\sqrt{2} + 1)}{(\sqrt{2} - 1)(\sqrt{2} + 1)} = \frac{2\sqrt{2} - \sqrt{6} + 2 - \sqrt{3}}{2 + \sqrt{2} - \sqrt{2} - 1}$$

$$= 2\sqrt{2} - \sqrt{6} + 2 - \sqrt{3}$$



Which has the greatest area, triangle OAB or sector ODC?

$$\frac{y}{\sin 80} = \frac{6}{\sin 20} \quad y = 17.276$$

$$\frac{1}{2} \times 6 \times 17.276 \times \sin 80 = 51.04$$

$$\frac{14}{360} \times \pi \times 17.276^2 = 36.4$$

Triangle abc