

15th January



Corbettmaths

Shown below are four fractions.

$$\frac{5}{8} \quad \left(\frac{1}{3}\right) \quad \left(\frac{2}{7}\right) \quad \frac{11}{20}$$

0.625                      0.55

Circle any fractions which are recurring decimals.

$a \times 10^4$  is a square number written in standard form.  
 $a$  is a positive integer  
 Write down all the possible values of  $a$ .

$$a = 1 \quad (10,000 = 100^2)$$

$$a = 4 \quad (40,000 = 200^2)$$

$$a = 9 \quad (90,000 = 300^2)$$

The attendance at a football match is 40000. UB = 40250  
 This number is correct to the nearest 500.  
 The number of males attending the match is 29000. LB = 28500  
 This number is correct to the nearest 1000.

Work out the maximum number of females that could be attending the match.

$$40250 - 28500 = \underline{11750}$$

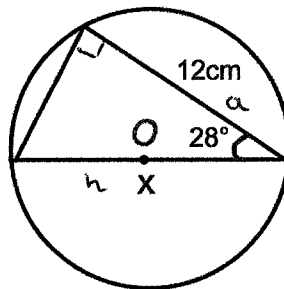
Find  $x$ 

$$\cos \theta = \frac{a}{h}$$

$$x = 13.6 \text{ cm (3sf)}$$

$$\cos 28 = \frac{12}{x}$$

$$x = \frac{12}{\cos 28}$$



Solve using the quadratic formula

$$3x^2 + 11x + 9 = 0$$

a                      b                      c

$$\frac{-11 \pm \sqrt{11^2 - 4 \times 3 \times 9}}{2 \times 3}$$

$$\frac{-11 \pm \sqrt{13}}{6} \quad \begin{array}{l} + \rightarrow -1.23 \\ - \rightarrow -2.43 \end{array}$$