

10th March



Corbettmaths

In 2012 the number of golfers in a club is 450.

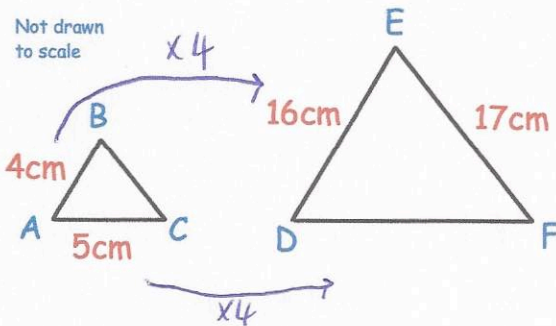
In 2014 the number of golfers was 520.

Work out the percentage increase.

$$\frac{70}{450} \times 100 = 15.5\%$$

correct

Not drawn to scale



Triangles ABC and DEF are similar.

AB = 4cm AC = 5cm
DE = 16cm EF = 17cm.

Work out the length of DF.

20 cm

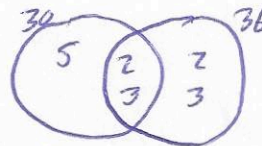
Michael organises his books into groups of 36. He then organises them into groups of 30.

What is the smallest possible number of books that Michael has.

$$30 = 2 \times 3 \times 5$$

$$36 = 2 \times 2 \times 3 \times 3$$

$$\text{LCM of } 36 \text{ \& } 30 = \underline{180}$$



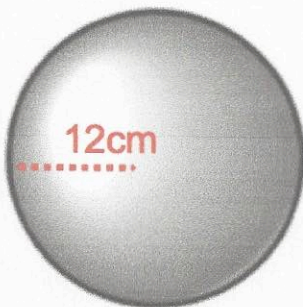
$$5 \times 2 \times 2 \times 3 \times 3 = 180$$

$$7\frac{1}{2} + 2\frac{3}{5}$$

$$\frac{15}{2} + \frac{13}{5}$$

$$\frac{75}{10} + \frac{26}{10} = \frac{101}{10}$$

$$10\frac{1}{10}$$



Calculate the volume of the sphere. Give your answer to 1 decimal place.

$$V = \frac{4}{3} \pi r^3$$

$$= \frac{4}{3} \times \pi \times 12^3$$

$$= 7238.2 \text{ cm}^3$$