

26th November

Corbettmaths

n is the set of even numbers from 1 to 200

O is the set of odd numbers

P is the set of prime numbers

C is the set of cube numbers

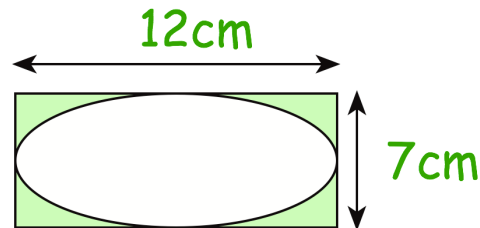
S is the set of square numbers

How many numbers are there in the set $O \cup P \cup C \cup S$

The area of an ellipse, width a and height b is given by

$$A = \frac{\pi ab}{4}$$

Find the shaded area.



Prove $(2n + 1)^2 - (2n + 1)$ is always a even number for all positive values of n.

Mrs Jenkins is making decorations for a wedding.
She needs $18\sqrt{5}$ metres of ribbon in total.
Mrs Jenkins has 40 metres of ribbon.
Does she have enough ribbon?

The point A has coordinates $(-6,0)$
The point B has coordinates $(0,3)$
The point C has coordinates $(9,-1)$

Find the equation of the line that passes through C and is perpendicular to AB.