28th July
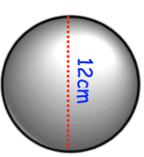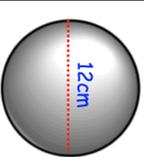
Here are the first 5 terms of a quadratic sequence

24   30   38   48   60

Find an expression, in terms of n, for the nth term of this quadratic sequence

Find the mass of the glass sphere.

A solid sphere has a diameter of 12cm.
The sphere is made from glass.
The density of the glass is 2.97g/cm

12cm

Solve

x² + 9 > 10x

A circle has equation x² + y² = 196

Work out the length of the diameter.

A group of scientists want to estimate the number of eels in a lake.
They catch and ring 400 eels.
They return the 400 eels to the lake.
They then catch 700 eels.
Of these, 16 are ringed.

Estimate the number of eels in the lake.