



Here are the first 5 terms of a quadratic sequence

24 30 38 48 60

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

A circle has equation  $x^2 + y^2 = 196$

Work out the length of the diameter.

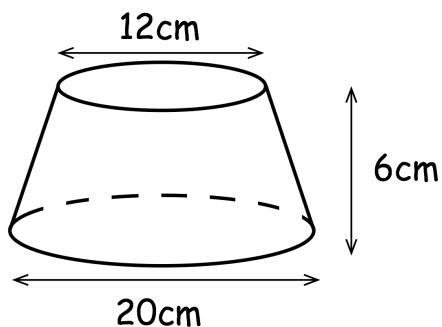
Solve

$$x^2 + 9 > 10x$$

Clive has a cone of base diameter 20cm.

He removes a cone diameter 12cm from the top of his cone to leave a frustum.

The height of the frustum is 6cm.



Find the volume of the frustum

The frustum has the same volume as a sphere.

Find the radius of the sphere.