

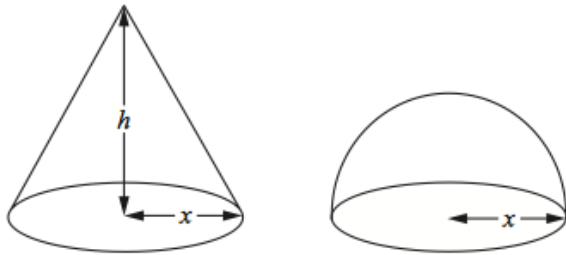
15th November

Corbettmaths

The first 5 terms of a quadratic sequence are

-0.5 -3 -6.5 -11 -16.5

Find an expression for the n th term



Show that $h = 2x$

The diagram shows a cone and a hemisphere.

The hemisphere has base radius x cm.

The cone has base radius x cm and perpendicular height h cm.

The volume of the cone is equal to the volume of the hemisphere.

$$\begin{pmatrix} 7 & -1 \\ w & 3 \end{pmatrix} \begin{pmatrix} 2 \\ -3 \end{pmatrix} = \begin{pmatrix} 17 \\ -1 \end{pmatrix}$$

Find the value of w

Find the coordinates of the maximum point of the curve $y = 32x - x^4$