

28th February

Corbettmaths

Solve the simultaneous equations

$$y = x^2 - 9x - 3$$

$$y = x$$

Show that $2 - 2\sin^2 x$
is equivalent to $2\cos^2 x$

The volume of a container with a height
of x , is given by

$$V = x(x - 2)(5 - x)$$

where $2 < x < 5$

Find $\frac{dV}{dx}$

Hence find the value of x for which the
volume is a maximum. Give your answer to
1 decimal place.