

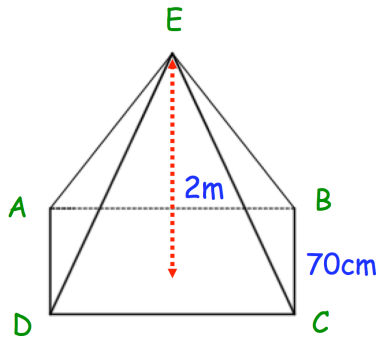
**23rd April**

Corbettmaths

A curve has gradient function

$$\frac{dy}{dx} = 17 - x^3$$

Work out the gradient of the curve when  
 $x = -2$

 $f(x) = 2500 - x^3$  for all values of  $x$ .
Solve  $f(3x) = 2$ 

ABCDE is a square based pyramid.  
 Work out the angle between planes ABCD  
 and ADE.

The transformation matrix  $\begin{pmatrix} 3a & 4b \\ b & a \end{pmatrix}$   
 maps the point  $(1, -2)$  onto the  
 point  $(-2, -1)$

Find the values of  $a$  and  $b$