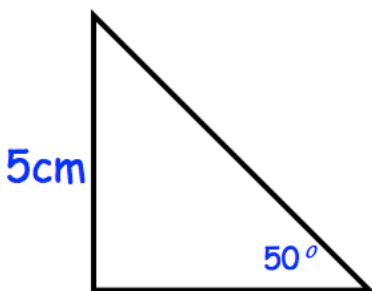


**10th August**

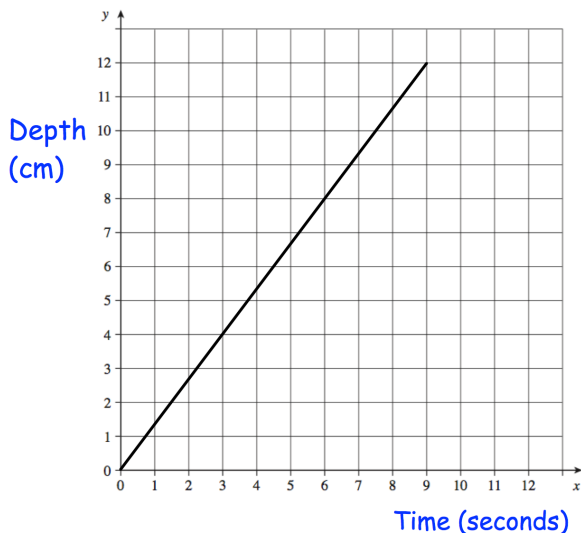
Corbettmaths

A circular plaque of diameter 8cm is cut from a square piece of metal with side length 8cm.

What percentage of the metal is wasted?



Calculate the area of the right angled triangle.



Water is poured into a glass for 6 seconds. The graph shows the depth of the water in the glass.

What is the rate of change of the depth of the water?  
Give your answer in cm/s.

Another glass contains water that is 10cm deep. It is emptied at a rate of 2.5cm/s. Show this on the graph.

Shapes A, B and C are similar.  
The height of shape A is 8cm  
The height of shape C is 4cm  
The ratio of the surface area of shape B to the surface area of shape C is 25:9  
Work out the ratio of the volume of shape A to shape B.