

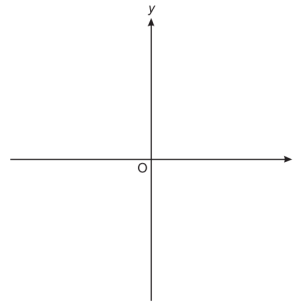
29th October



Corbettmaths

Sketch

$$y = \frac{1}{x}$$



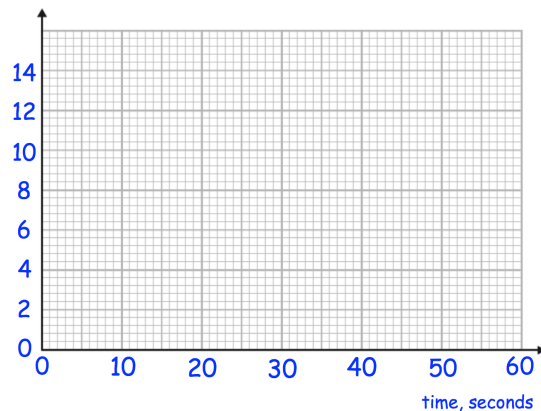
A sculptor wants to transport a piece of rock. It is a sphere with radius 0.4m to the nearest centimetre. The density of the rock is 3.4g/cm<sup>3</sup>. The truck can carry up to 1000kg to one significant figure.

Can the sculptor safely transport the rock?

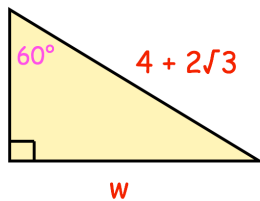
A remote control car drives in a straight line.

It starts from rest and travels with constant acceleration for 15 seconds reaching a velocity of 10m/s. It then travels at a constant speed for 5 seconds. It then slows down with constant deceleration of 0.5m/s<sup>2</sup>.

Velocity, m/s



Draw a velocity-time graph and work out the total distance travelled.



Find the exact length of the side labelled w.