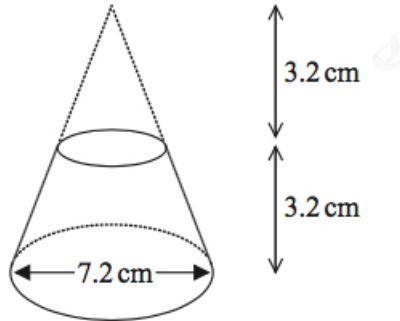


Dr Oliver Mathematics
Worked Examples
Mass, Density, and Volume 1

From: Edexcel 2018 November Paper 3H (Calculator)

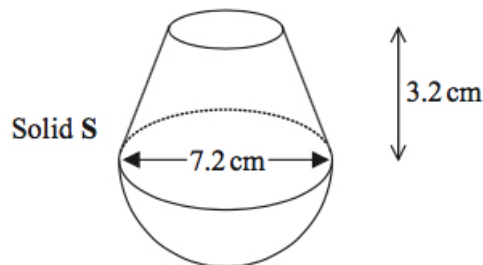
1. Here is a frustum of a cone.

(5)



The diagram shows that the frustum is made by removing a cone with height 3.2 cm from a solid cone with height 6.4 cm and base diameter 7.2 cm.

The frustum is joined to a solid hemisphere of diameter 7.2 cm to form the solid **S** shown below.



The density of the frustum is 2.4 g/cm^3 .
The density of the hemisphere is 4.8 g/cm^3 .

Calculate the average density of solid **S**.