

## DENSITY

### Question 1

You are given three materials, **A**, **B** and **C**.

The mass and volume of the materials are given in the table below.

Material	Mass	Volume	Density
<b>A</b>	320 g	40 cm <sup>3</sup>	g/cm <sup>3</sup>
<b>B</b>	440 g	40 cm <sup>3</sup>	g/cm <sup>3</sup>
<b>C</b>	80 g	40 cm <sup>3</sup>	g/cm <sup>3</sup>

- (a) Find the density of the materials **A**, **B** and **C**. [3]  
(b) Which material is the least dense? \_\_\_\_\_ [1]  
(c) Which material is the densest? \_\_\_\_\_ [1]

### Question 2

A block of certain material is 3 cm long, 2 cm wide, 5 cm high. The mass of the block is 15 g.

- (a) Find the volume of the block.

\_\_\_\_\_ cm<sup>3</sup> [1]

- (b) What is the density of the material?

\_\_\_\_\_ g/cm<sup>3</sup> [1]

## Exercises on Floating and Sinking

### Question 3

You are given the following substance and its density. Identify whether the following will float or sink in water.

The density of water is given to be  $1.0 \text{ g/cm}^3$

Substance	Density	Float or sink?
Cooking oil	$0.95 \text{ g/cm}^3$	
Mercury	$13.6 \text{ g/cm}^3$	

[2]

### Question 4

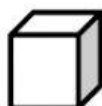
You are given the following objects and their respective density.



**Cork**  
 $0.24 \text{ g/cm}^3$



**Glass**  
 $2.50 \text{ g/cm}^3$



**Ice**  
 $0.92 \text{ g/cm}^3$

**Water**  
 $1.00 \text{ g/cm}^3$

**Glycerine**  
 $1.3 \text{ g/cm}^3$

**Corn oil**  
 $0.89 \text{ g/cm}^3$

In the large container below,

(a) Label the position of the liquids in the correct order, from denser to less dense. [3]

(b) Drag the cork, glass and ice to position them below in the correct order. [3]

(b) Drag the objects into here!

(a) Drag the name of liquids into these boxes!

