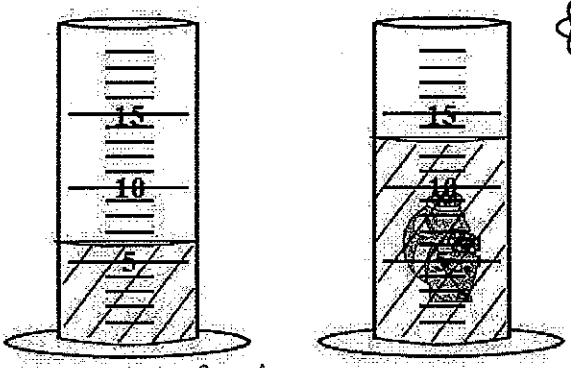
All sections marked with a ⚛ are considered essential concepts and must be completed to receive full credit on WS.

How do you measure the mass of a solid?
L x W x H or Displacement method

How do you measure the mass of a liquid?
measure mass of container
measure mass of liquid + container
subtract mass of container from combined mass

How do you measure an irregular shaped object?
Displacement Method

How do you measure the volume of a floating object?
Push object down until object is under the water

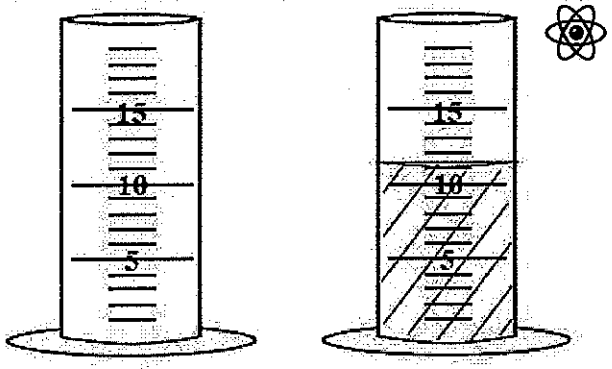


Volume before: 6mL Volume after: 13mL

Volume of the toy car: 13ml - 6ml = 7mL

If the mass of the toy car is 14 grams, find its density.

D = m/V m 14g V 7ml $d = \frac{14g}{7ml} = 2\ g/ml$



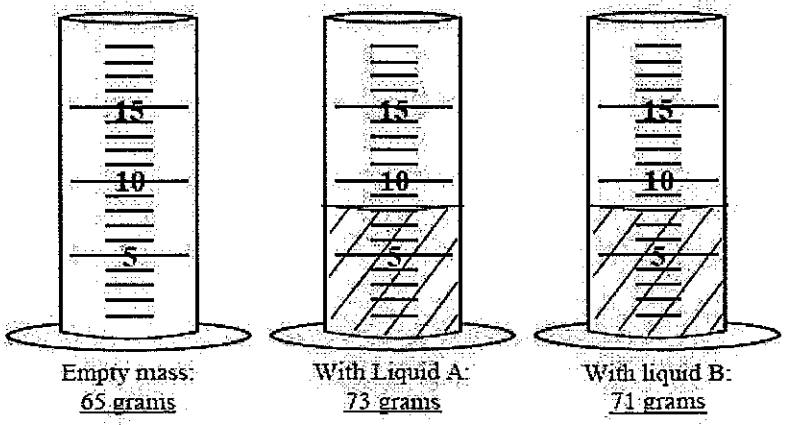
Empty mass: 65 grams Mass with liquid: 88 grams

88g - 65g = 23g Volume of liquid: 11ml

Mass of the just the liquid: 23g

What is the density of the liquid?

d = m/V m 23g V 11mL $d = \frac{23g}{11mL} = 2.09\ g/mL$



Empty mass: 65 grams

With Liquid A: 73 grams

With liquid B: 71 grams

The two liquids have the same: Volume

Which one has more mass? A

Volume of A: 8mL Mass of A: 8g 73g - 65g = 8g

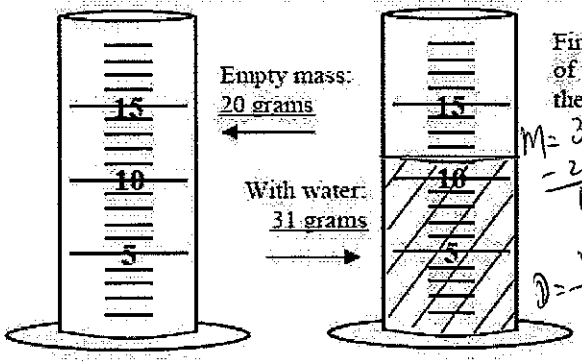
D = m/V

Density of Liquid A: 8g/8mL = 1 g/mL

Volume of B: 8mL Mass of B: 6g 71g - 65g = 6g

D = m/V

Density of Liquid B: 6g/8mL = 0.75 g/mL



Empty mass: 20 grams

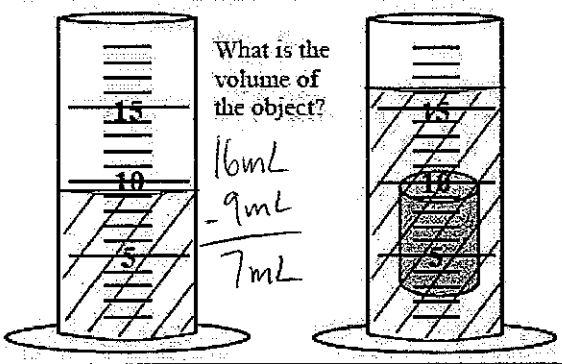
With water: 31 grams

Find the density of the liquid in the cylinder.

m = 31g - 20g = 11g V = 11mL

D = m/V

$D = \frac{11g}{11mL} = 1\ g/mL$



What is the volume of the object?

16mL - 9mL = 7mL