

Density – 2019 Nov

1. 0625/11.21/O/N/19/No.5

The density of air is 1.2 kg/m^3 .

A room has dimensions $5.0 \text{ m} \times 4.0 \text{ m} \times 3.0 \text{ m}$.

What is the mass of the air in the room?

- A** 0.02 kg **B** 0.10 kg **C** 50 kg **D** 72 kg

2. 0625/12.22/O/N/19/No.5

The table gives the mass and the volume of three objects P, Q and R.

object	mass/g	volume/cm ³
P	23	36
Q	170	720
R	240	340

Which objects can float in a liquid of density 0.85 g/cm^3 ?

- A** P and Q only
B P and R only
C Q and R only
D P, Q and R

3. 0625/13,23/O/N/19/No.5,6

Four hollow glass spheres P, Q, R and S each have a mass of 72 g.

Their volumes are given in the table.

	volume / cm ³
P	55
Q	65
R	75
S	85

Which spheres sink in a liquid of density 0.9 g / cm³?

- A** P, Q and R **B** Q, R and S **C** R and S only **D** S only

4. 0625/21/O/N/19/No.14

An object is 20 cm below the surface of a liquid. The density of the liquid is 1200 kg / m³.

What is the pressure on the object due to the liquid?

- A** 600 Pa **B** 2400 Pa **C** 60 000 Pa **D** 240 000 Pa