

CHEQ 1094: DENSITY LAYERS

Date: _____

Name: _____

Lab Day/Time: _____

Objective

The object of this experiment is to determine the miscibility and density of some liquids and to determine the density of some solid objects by dropping them into a series of unmixed liquids.

Procedure

As in the Chem 1094 lab manual, pages _____

Observations

Table 1. Observations of different liquid layers

Liquid	Observations

Data

Table 2. Determining the density of the layers

Layer						
Mass of graduated cylinder before adding liquid to cylinder (g)						
Mass of cylinder after adding liquid to cylinder (g)						
Volume of liquid in cylinder before adding household liquid to cylinder (mL)						
Volume of cylinder and contents after adding liquid (mL)						
Calculated mass of liquid (g)						
Calculated volume of liquid (mL)						
Calculated density of liquid (g/mL) (<i>Show your calculations below</i>)						

Calculations

Show a sample calculation for each step in the space provided below

Mass of liquid layer

Volume of liquid layer

Density of liquid layer

Results

Table 3. Determining the Approximate Density of Solid Objects

Object					
<p>Which layer was it on the bottom of (if any)? (“bottom of ____ layer”)</p> <p>Which layer was it on top of (if any)? (“top of ____ layer”)</p> <p>(If it was in the middle of a layer, say “middle of ____ layer”)</p>					
<p>Calculated densities of those layers (say which density is which)</p> <p>(or of the layer it was in the middle of)</p>					
<p>Therefore, approximate density of solid object (g/mL)</p> <p>(State as greater than, less than, or equal to, density of layer(s) where it came to rest)</p>					

Questions

1. Can you think of other liquids that could be used to widen the range of your density determining device?

2. a) List the household liquids in order of increasing density.

b) List the solid objects in order of increasing density.

Conclusion

Using a sentence, state the densities of all the liquids that were used today.