Name: _____

Assessment 1

You have samples of four liquids: water, oil, corn syrup, and a mystery liquid. You have standard laboratory equipment available to you.

1. *What would you know about the mystery liquid's density if you added the mystery liquid to a cylinder containing water, oil, and corn syrup, and it floated between the oil and water?*

2. *How could you find the exact density of the mystery liquid? List the steps you would have to complete to find it.*

Name: _____

Assessment 2

A water scientist needs your help. He took surface water samples from the salty North Atlantic Ocean and the freshwater Amazon River during the day and at night. He recorded the temperature, salinity, location, and time of day for each sample in his notebook. Unfortunately, his notebook got wet and the data for location and time of day is now unreadable. Use what you know about salinity and temperature to fill in chart below. After you have filled in the chart, explain your reasoning for one of the samples. Be sure to include reference to salinity and temperature in your explanation.

	Location (Amazon or North Atlantic)	**Day or Night**	**Salinity in parts per thousand**	**Temperature in °F**
1			36.5 ppt	71°F
2			36.5 ppt	70°F
3			.05 ppt	81°F
4			.05 ppt	80°F

Explanation: