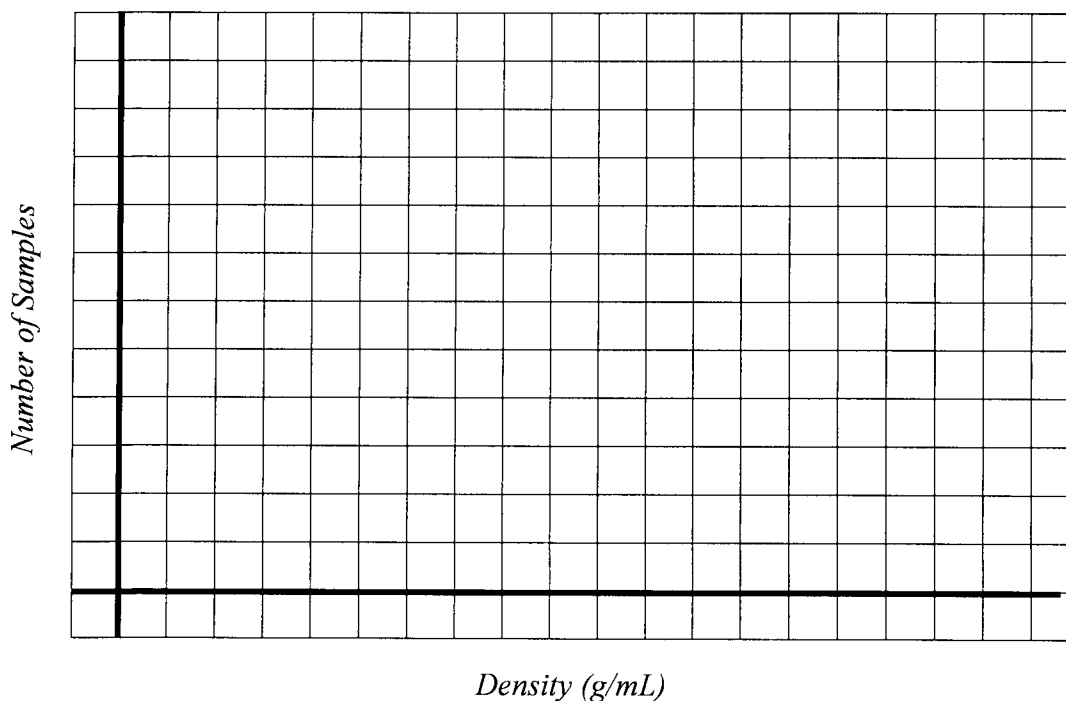


4. Draw a histogram below to match all student data. Determine the range for your class data set and divide the line into equal intervals. Neatly label the intervals. Be sure to include a title.

Remind students to copy the class data from the spreadsheet on their own paper or print copies of the spreadsheet for them to use to draw their graphs. Sample class data is given here. Teachers note that on a histogram the bars touch at the edge of each interval. They do not touch between intervals on a bar graph.

<i>Number of Samples</i>	<i>Density of Liquid (g/mL)</i>
1	0.6
0	0.7
3	0.8
2	0.9
8	1.0
1	1.1



5. (a) Describe the data displayed on your graph.
The class data ranges from 0.6 g/mL to 1.1 g/mL. Most of the class (8 groups) had a density of 1.0 g/mL.
- (b) Do you think that all groups had a sample of the same liquid? _____
Explain your answer.
If all student data is about 1 g/mL (1 g/cm³), then the answer should be yes. The density of a substance is the same regardless of the volume.
6. (a) Find the median. _____
- (b) Would you say the median represents the actual density of the substance? _____
Why or why not?
If the student data is good, the median will be 1 g/mL (1 g/cm³).

7. From your observations and data, what do you predict would be the density of one **liter** of this liquid? 1 g/mL Explain your answer.
(The density of a substance is a characteristic property and does not depend on the amount of the substance measured.)

8. Use the **Table of Densities** (p. 25) to determine the most likely identity of the liquid substance.

The substance is water.