

Name: _____

Class: _____

Fluid Math

1. Syrup flows at a rate of 60 ml/minute. If a container of syrup holds 420 ml, how long will it take to empty all of the syrup out of the container?

2. A piece of aluminum that is 20 cm^3 has a mass of 54 g.
- What is the density of the aluminum?
 - How much mass would a 35 cm^3 piece of aluminum have?
 - How big would a 15 g piece of aluminum be?

3. If 100 ml of water has a mass of 100 g and a piece of wood has a mass of 200 g can the wood float on the water? Explain.

4. If 100 ml of water has a mass of 100 g and 50 ml of ethanol has a mass of 40 g, when the two materials are poured into a bowl which substance will float on top of the other (assuming they are insoluble)? Justify your answer with calculations.

5. Vegetable oil has a density of 0.92 g/ml. Cork has a density of 0.24 g/cm³. If a piece of cork is 3.45 cm³, how much of it will be submerged in the oil if it were to be placed on top?

6. How would you determine the volume of an apple? Explain.

