Name: _____

1. State Archimedes' principle. (20 pts)

2. Explain the relationship $F_B = \rho V g$. (25 pts)

3. Briefly explain the methods used in Part 1 through Part 3 of this experiment to determine buoyant force. (25 pts)

4. Draw a free-body diagram for an object of mass M, for the following two situations:
   a. a submerged object suspended by a string; *b.* a floating object. Draw to scale. (30 pts)