

Lab Homework 2 – Due 02/26/2009

Name: _____

Section: 8:00 11:00 12:30 6:30

Designing Functions

For each the following activities, write a function *prototype* to perform the action and describe the parameters and return value for the function you define. Do not implement the functions.

1. Activities at an Automated Teller Machine (ATM)

(a) Given an account number, check the balance.

(b) Given a withdrawal amount, calculate the number of 50, 20, 10, and 5 dollar bills needed to fulfill the transaction.

2. Mathematical Activities

(a) Given the coefficients a, b, c to a quadratic equation $ax^2 + bx + c = 0$, compute the two complex roots $r + si, u + vi$. (Hint: the roots can be specified by the four values r, s, u, v).

(b) Given a radius of a sphere and the density of a liquid, compute the area and volume of the sphere, and the weight of the liquid it can contain.

3. A Game for Three Players

(a) Take three integers by reference, and negate the one of largest value.