

## Lab Assignment 4 - 02/05/2009

Name: \_\_\_\_\_

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

**Problem 1: Function Prototypes and Conditional Expressions**

The following table has each row describe a function of certain inputs and output types or a description of a conditional expression. For functions, write a prototype. For conditionals, write the code expression.

Type	Description	Code
Func.	<b>biggest</b> takes three integers and outputs the largest.	
Func.	<b>average</b> takes three integers and outputs the average of the values, which may not be an integer.	
Func.	<b>outputPowers</b> takes a double <b>b</b> and an integer <b>p</b> and prints the powers of <b>b</b> from 0 to <b>p</b> to the screen. Does not return anything.	
Cond.	<b>a</b> is smaller than <b>b</b> and is also bigger than <b>c</b>	
Cond.	<b>a</b> is not bigger than <b>b</b> or is the same as <b>c</b>	
Cond.	<b>a</b> is equal to <b>b</b> and <b>b</b> is not equal to <b>c</b>	

**Problem 2: Programming Conditional Functions**

Download `conditional.zip` from the lecture outline. Expand it into your **Z:** drive and open `conditional.c`. Implement the functions `biggestNumber`, `smallestNumber`, and `allEqual`, which are currently given as prototypes.

- `int biggestNumber(int a, int b, int c)` returns the largest number between **a**, **b**, and **c**.
- `int smallestNumber(int a, int b, int c)` returns the smallest number between **a**, **b**, and **c**.
- `char allEqual(int a, int b, int c)` returns 'T' if all inputs are equal and 'F' if any are different.

To check your work, type the command `make` and show the instructor.