## 15-112 Exam \#1

## Summer-2 2013 (Kesden)

1. Please write code to solicit two numbers from the user, storing each into a separate variable, and print each
2. Given the two variables in your solution to \#1 above, please convert their values into floating point numbers, saving the result into two new variables, add these new variables, and print the result.
3. Given the two floating point variables in your solution to \#2 above, please use a single "if statement" to print the larger (closer to positive infinity) of the two numbers, or "equal" otherwise.
4. Given the two floating point variables in your solution to \#2 above, please use a single "if statement" to print the absolute value of the difference of the two variables. You may not multiply or divide.
5. Please write code to print the negative numbers from 0 through -10 using a while loop.
6. Please write code that repeatedly prompts the user for numbers until the user has entered five (5) negative numbers, at which time it prints their sum. Should the user enter a non-negative number, the input should be ignored and it should not count as one of the five (5) numbers.
7. Please write code that repeatedly prompts the user for numbers until the user has entered five (5) negative numbers, at which time it prints their sum. Should the user enter a non-negative number, no more input should be requested of the user, nothing should be summed, and "Bad input" should be printed.
8. Please write code that uses nested loops (a loop within a loop) to print a "multiplication table" for the numbers one (1) through ten (10), inclusive. But, this table should be nuanced. It should print an " $X$ ", unless the number is a multiple of 3 .
9. Consider the following code:
a. How many times will "Hello" be printed?
b. Write out the output of this program (which will be several lines, each with "hello")
c. Augment each line of output from part (b) above with the values of $I$ and $j$ at time hello is printed, for example "hello - $\mathrm{i}=5, \mathrm{n}=20$ "
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def testA():
    i = 5
    n = 5
    while ((2 * i) > n):
            print "Hello"
            i -= 1
```

