CS:1210 (22C:16) Quiz 4 Version (a)

You have 15 minutes to complete this quiz. Please put away your books, notes, and all electronic devices

1. For each of the following expressions, first determine if evaluating it would cause Python to report an error; if so, explain in a sentence what it was about the expression that caused the error. Otherwise, if you think the expression will evaluate in Python in an error-free manner, write down the *value* that the expression evaluates to and its *type*. Assume that the module `sys` has already been imported prior to the evaluation of these expressions. Further, assume that the value of `sys.maxint` is 9223372036854775807.

   (a) `not 5 and True`

   (b) `sys.maxint + 1 - 2`

   (c) `not not True and False or not True`

   (d) `3 + -2**3 % 4`

   (e) `"hi" or 100/0`

Turn over for Problem 2

2. The problem is to write a program that reads a sequence of positive integers and then outputs the number of integers in the sequence that are either less than or equal to 10 or greater than or equal to 90. The user will input 0 to indicate that she is finished inputting her sequence of positive integers. The 0 is not considered part of the sequence that your program needs to process. Here is an example interaction between the user and the program:

```
4
17
98
3
13
100
14
8
0
The number of small and large integers is:  5
```

Note that the numbers 4, 98, 3, 100, and 8 satisfy the condition specified in the problem and hence the output is 5. The following partial program solves this problem. Complete the program by filling in the blanks.

```
    ---------------------

  while True:
      n = int(raw_input())
      if n == 0:

          ----------------

      if _____:

          count = count + 1

  print "The number of small and large integers is: ", count
```