Tutorial 4: Conditional Statements (2)

1. A lecturer gives 5-point quizzes that are graded on the scale 5:A, 4:B, 3:C, 2:D, 1:E and 0:F. Write a program that accepts a quiz score as an input and uses a decision structure to calculate the corresponding grade.

2. Write a program that asks for a number, and outputs the word ***Very High*** if the number is greater than 10, outputs ***High*** if the number is greater than 8, outputs ***Medium*** if the number is greater than 5, and ***Low*** otherwise.

3. The following is a program stub to help choose a type of cheese based on 3 parameters.

```
a,b,c = input ("Enter three numbers: ")
if a>=c:
    print "Cheddar"
elif a<b:
    print "Gouda"
elif c==b:
    print "Swiss"
else:
    print "Threes"
print "Done"
```

   Dry run the program to determine the output that would result from each of the following possible inputs:
   a. 3, 5, 2
   b. 5, 4, 7
   c. 3, 3, 2

   Now, test your answers by running the program in Python with the stated values.

4. The following program checks whether a number entered by the user is odd or even:

```
response = input("Enter a number (or 'q' to quit): ")
number = int(response)
remainder = number % 2
if remainder == 0:
    print (number, "is even.")
else:
    print (number, "is odd.")
```

   Modify the program to also check for the case where the user enters a ‘q’ instead of a number. When a ‘q’ is entered, the program should print the message “Quitting” and skip the rest of the program.

5. Write a program to:
   a. Ask the user to enter two numbers. (Hint: use floating point (float) numbers)
   b. Find the sum of the two numbers and the product of two numbers. Store the sum and product in appropriately named variables.
   c. Check if any of the numbers are equal to zero. If so, the program should print a message and quit. Otherwise (and only otherwise), check if the product is less than the sum, and output a message saying whether the product is lower or higher.