Pseudocode Problems Week 5

Instructions

- This week there are X problems for you to solve and write Pseudocode for.
- All 5 solutions should be on a single Notepad document and saved using your student number and name (e.g. NoelCarey_B000123456.txt)
- When writing your solutions, keep in mind the 5 standard guide points.
    1. Program explanation at the start.
    2. One statement per line.
    3. Use of white space and indentation.
    4. Capitalisng of Key Words and good structure
    5. Correct logic and flow.
- Upload your single text file to the appropriate Moodle section.
- REMEMBER: your task here is to write Pseudocode and get the logic and structure of the program correct. You don't need to know all the nuts and bolts of a programming language.

Don't forget your program Structure Guide:

//Declare variables
//Get input from user
//Processing
//Output or Results

Symbol	Meaning
<	**Less than**
>	**Greater than**
<=	**Less than or equal to**
>=	**Greater than or equal to**
==	**Equal to**
!=	**Not equal to**
&&	**Logical AND**
||	**Logical OR**

Question 1

Write a Pseudocode program to read an integer value in the range 1..100 and output its value in words. For example, if the input is **45** then the output is **"forty five"**. If the number entered is not within the valid range the program should print "Invalid number!". **(A Flowchart May Help You)**

```
Please enter a number between 1 - 100: 1
One
Please enter a number between 1 - 100: 12
Twelve
Please enter a number between 1 - 100: 21
Twenty One
Please enter a number between 1 - 100: 100
One Hundred
```

Question 2

Write a program that reads the length of any three lines a, b, c and prints one of:

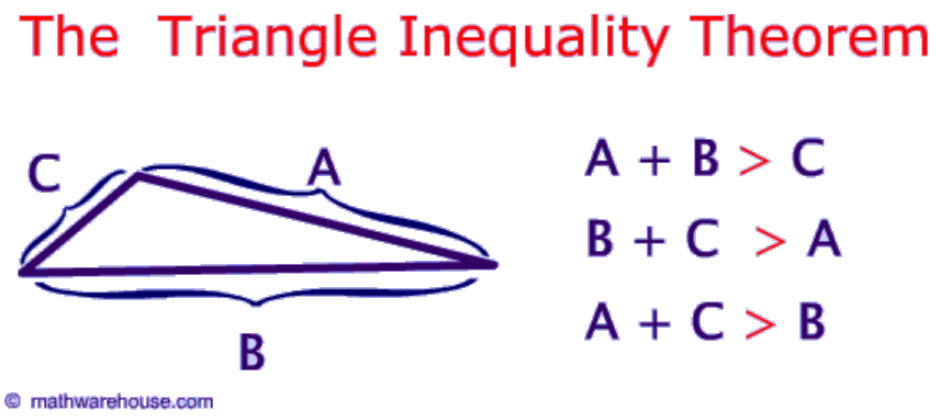
A) Triangle; followed by either scalene, isosceles or equilateral; followed by either right angled or not right angled,

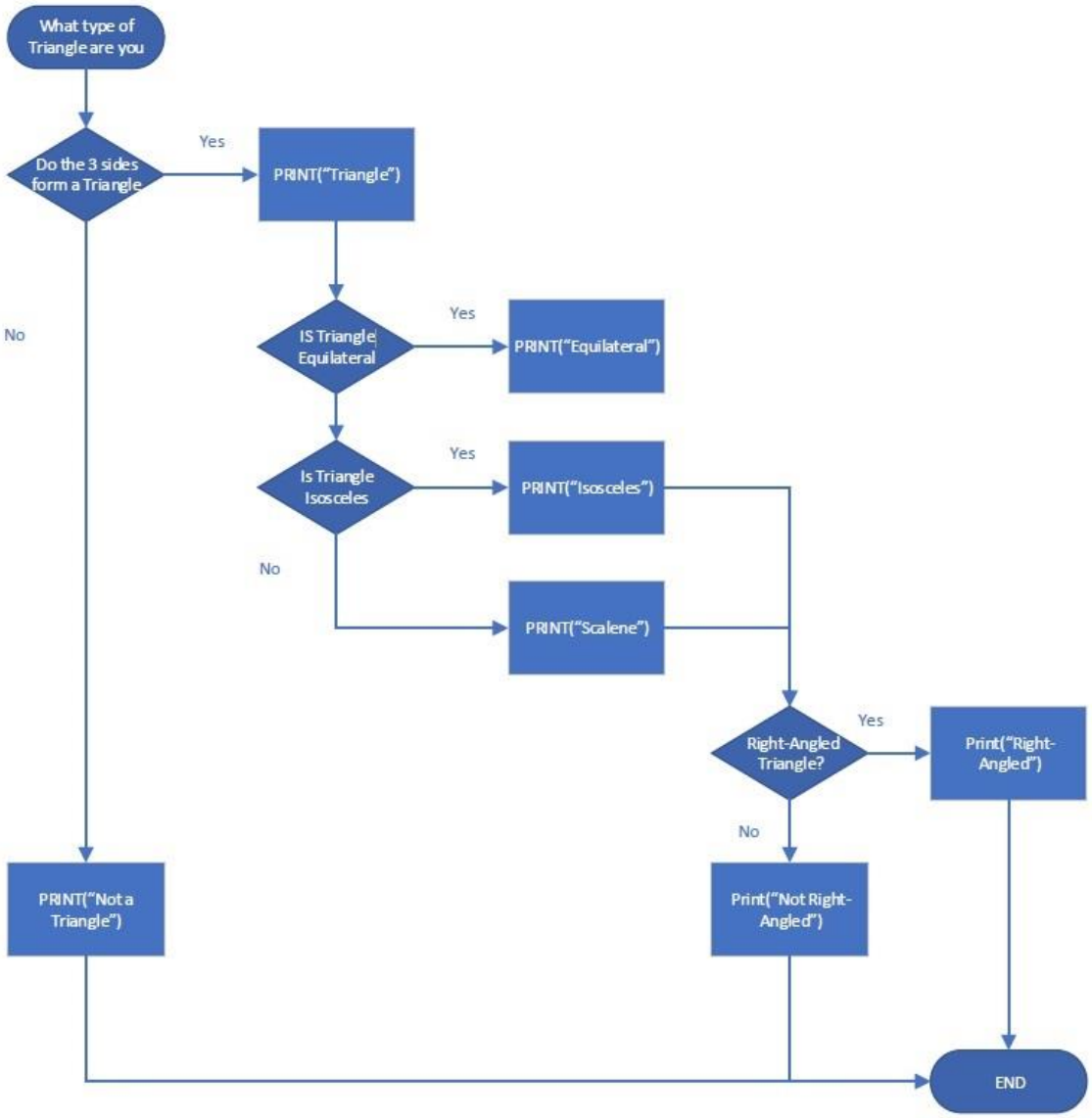
B) Not a triangle.

NOTE: You may assume that a, b, c > 0.
Sample Input: 3, 4, 5
Sample Output: Triangle, scalene, right angled

TIP: If the lengths satisfy the Pythagorean Theorem (a*a + b*b = c*c), where c is the longest side, then it is a right angled triangle.

```
Enter length of line A : 3
Enter length of line B : 2
Enter length of line C : 5
Not a triangle.
Enter length of line A : 3
Enter length of line B : 3
Enter length of line C : 3
Triangle, equilateral.
Enter length of line A : 3
Enter length of line B : 4
Enter length of line C : 5
Triangle, scalene, right angled.
Enter length of line A : 8
Enter length of line B : 8
Enter length of line C : 6
Triangle, isosceles, not right angled.
```




What type of Triangle are you
Do the 3 sides form a Triangle
Yes
PRINT("Triangle")
No
IS Triangle Equilateral
Yes
PRINT("Equilateral")
Is Triangle Isosceles
Yes
PRINT("Isosceles")
No
PRINT("Scalene")
Right-Angled Triangle?
Yes
Print("Right-Angled")
No
Print("Not Right-Angled")
PRINT("Not a Triangle")
END