**Lab #6 (10 points + 5 bonus points)**

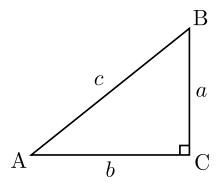
# Practice: functions

Task #1 Triangle

Given a right triangle as shown below, assume a user will enter values for sides a and b.

1. Write a function that takes sides a and b as parameters and returns the value of side c.
2. Write a function that takes sides a and b as parameters and returns the degree of the angle <BAC (i.e. the angle opposing side a).
3. Write a main function that provides the required tests as given below. Finally call the main function to execute the program.

Note: Properly comment your program as suggested in the lecture.



Test case:

1. a = 7.5, b = 7.5
2. a = 7.5, b = 10.0
3. a = 6.0, b = 4.5

Note: You may need to use functions in math library such as sqrt(x), degrees (x), atan(x). See Appendix C in textbook or google Python 3 math library for details.

Task #2 Prime Checker (5 bonus points)

A prime number is a number that is only evenly divisible by itself and 1. For example, the number 5 is a prime because it can only be evenly divided by 1 and 5. The number 6, however, is not a prime because it can be divided evenly by 1, 2, 3, and 6.

Write a function named isPrime, which takes an integer as an argument and returns True if the argument is a prime number, or False otherwise. Also write a Test driver, i.e. main function, that asks user to enter an integer number, if the number <= 1 print out a message and exit the program, otherwise, call isPrime to check if it is a prime number and print out “is prime” or “not prime” accordingly. Test cases: 1, 2, 17, 27, 61, 237, 255

Submission requirement:

1. Copy and paste the output of all your test runs to the end of your program and comment out the output
2. Upload your Python program (with output added) to blackboard along the Lab 6 link.