**Assignment 03**

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**ENG 101-02**

**Due Date 11/04/2019.**

**QUESTION 1: LAW COSINES:**

**CODE:**

# Input sides of Triangle:

a = int(input("Side a: "))

b = int(input("Side b: "))

c = int(input("Side c: "))

sides = [a, b, c]

print("For triangle sides:" ,sides)

#

#Apply LoCosines:

import math

Angle\_A = math.degrees(math.acos((b\*\*2 + c\*\*2 - a\*\*2)/(2\*b\*c)))

Angle\_B = math.degrees(math.acos((c\*\*2 + a\*\*2 - b\*\*2)/(2\*a\*c)))

Angle\_C = math.degrees(math.acos((a\*\*2 + b\*\*2 - c\*\*2)/(2\*a\*b)))

# Rounding outputs to 2 decimal places:

outA = round(Angle\_A, 1)

outB = round(Angle\_B, 1)

outC = round(Angle\_C, 1)

#Printing Outputs:

print('Angle A in degrees is:' ,outA)

print('Angle B in degrees is:' ,outB)

print('Angle C in degrees is:' ,outC)

**SAMPLE OUTPUT:**

Python 3.8.0 (tags/v3.8.0:fa919fd, Oct 14 2019, 19:37:50) [MSC v.1916 64 bit (AMD64)] on win32

Type "help", "copyright", "credits" or "license()" for more information.

>>>

=== RESTART: C:\Users\d\_oti\Desktop\PYTHON ASSIGNMENTS\Assignment 3\_Qstn1.py ===

Side a: 7

Side b: 10

Side c: 12

For triangle sides: [7, 10, 12]

Angle A in degrees is: 35.7

Angle B in degrees is: 56.4

Angle C in degrees is: 88.0

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