**ITEC 136 Homework 1 Name: \_Danielle Hooven\_\_\_\_\_\_\_\_\_**

1. **[10 points]** Write a program that prompts user to enter three sides of a triangle. The program should determine if the three sides can form a triangle. To form a triangle, the sum of any 2 sides of a triangle must be greater than the length of the third side.

The program should do the followings using input-process-output model.

* 1. Prompt user to enter 3 sides of a triangle.
  2. Determine if the three sides can form a triangle.
  3. Display the result to user.

Here is a sample output:

Enter side 1 length: 10

Enter side 2 length: 20

Enter side 3 length: 30

Triangle with lengths 10.0, 20.0 and 30.0 cannot form a triangle.

Enter side 1 length: 3

Enter side 2 length: 4

Enter side 3 length: 5

Triangle with lengths 3.0, 4.0 and 5.0 can form a triangle.

1. **[10 points]** Please debug the following code, explain what is wrong with it, and fix it? Fix the code and turn in the corrected program.  
     
   Let’s suppose we are using a 24 hour clock (11 is 11am and 23 is 11pm, 0 is midnight). If it is currently 13 and you set your alarm to go off in 50 hours, it will be 15 (3pm). Write a Python program to solve the general version of the above problem. Ask the user for the time now (in hours), and then ask for the number of hours to wait for the alarm. Your program should output what the time will be on the clock when the alarm goes off.

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| --- |
| current\_time = input("What is the current time (in hours 0 - 23)?")  wait\_time = input("How many hours do you want to wait")  **print**(current\_time)  **print**(wait\_time)  final\_time = current\_time + wait\_time  **print**(final\_time) |

1. **[5 points]** Weekly Learning and Reflection  
   In two to three paragraphs of prose (i.e. sentences, not bullet lists) using APA style citations if needed, summarize and interact with the content that was covered in the introductory videos provided for this course. In your summary, you should highlight the major topics, theories, practices, and knowledge that were covered. Your summary should also interact with the material through personal observations, reflections, and applications to the field of study. In particular, highlight what surprised, enlightened, or otherwise engaged you. Make sure to include at least one thing that you’re still confused about. In other words, you should think and write critically not just about what was presented but also what you have learned through the session. Feel free to ask questions in this as well since it will be returned to you with answers.