

## Homework 1 (Max Points:100)

Due Date: September 17 by 11:59 pm EST

**Instructions:** Each response should be in a .py file. Submit all your code to

<https://submittity.cs.rpi.edu>

**Answer the following questions:**

For Question 1 and 2 create a single .py file for all parts (together) of each question.

1. Given two numbers number1 and number2, write a Python program to (25 points):
  - a. Add these two numbers
  - b. Subtract these two numbers
  - c. Multiply these two numbers
  - d. Divide these two numbers
  - e. Remainder (upon division) of these numbers
2. Repeat question 1 by using 'user provided' input for both numbers. (25 points)
3. Write a program that outputs the area of a circle given its radius = 3.7 inches. (5 points)
4. You can travel from location A to location B in 150 minutes. Write a program that converts these minutes to hours and minutes. (10 points)
5. Find the total surface area of a cylinder using its diameter. The program must accept diameter from the user. Define the height of the cylinder to be a variable with any reasonable value. (15 points)
6. Write a program that calculates (have a single file for both parts)
  - a. The square-root of a user provided number. (10 points)
  - b. Find the input number raised to power of 5 i.e. input ^5. (10 points)