CSCI 236 Python Programming Fall 2018

Assignment 4

1. Write a Python class to get all possible unique subsets from a set of distinct integers.

Input : [4, 5, 6]

Output : [[], [6], [5], [5, 6], [4], [4, 6], [4, 5], [4, 5, 6]]

1. Write a Python class to find a pair of elements (indices of the two numbers) from a given array whose sum equals a specific target number

Input: numbers= [10,20,10,40,50,60,70], target=50  
Output: 3, 4

1. Write a Python class to find the three elements that sum to zero from a set of n real numbers

Input array : [-25, -10, -7, -3, 2, 4, 8, 10]

Output : [[-10, 2, 8], [-7, -3, 10]]

1. Write a Python class to implement pow(x, n).
2. Write a Python class named Rectangle constructed by a length and width and a method which will compute the area of a rectangle.
3. Write a Python class named Circle constructed by a radius and two methods which will compute the area and the perimeter of a circle.