COSC 1306

Spring 2020

Assignment 2: Assignment Statement & Expression

[1] **Objectives**: We are doing very simple computation using assignment statements. This includes reading strings and numbers, evaluating some expressions, and printing the output. You will have to be familiar with operators, precedence, casting input strings into numbers, simple arithmetic, using a math constant PI, importing a module, and a little formatting of output. Some of these stuffs are not fully explained yet. I will give you enough help to complete the work.

[2] **Requirements**: You are helping a bakery to calculate how much to charge the customer who ordered a cake. The bakery knows how much per cubic inch to charge the customer based on their experience. This bakery allows the customer to order round cake by size (diameter in inches) and height (in inches). Your job is to design a program to compute the price of a cake given the parameters.
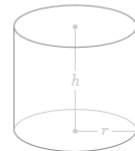
Right cylinder
Solve for volume ▾

$$V = \pi r^2 h$$

r Radius   Enter value

h Height   Enter value

Here are the steps.

- You need to import Math module so that you can use the number PI (math.pi) for calculation of the area.
- Cast some of the inputs into integer and float.
- Print the unit price of a customized cake. Don't worry about the two decimal digits in your first version. I will help you with the formatting in class.
- Use an escape character '\n' to add a blank line below the inputs.

[3] **Output**: A sample execution of the program looks like the figure below.

```
Enter the name of the cake: Cheese Cake
  the diameter (in inches) of the cake: 6
  the height (in inches) of the cake: 2
  the price per cubic inch: 0.50

Cake Diameter: 6.0 inches, Height: 2 inches
Volume of cake:    56.55
Price of the cake: $   28.27

Process finished with exit code 0
```

[4] **Deadline**: 2:15 pm, Wednesday, February 5, 2020.