Python – Lab exercise 1

1. In order to evaluate 1/2π, a student wrote the following expression:

```
>>> 1.0 / 2.0 * pi
```

(assume that pi is a variable having the value π).

Do you think the expression is correct? If yes, justify, else explain the error.

2. On the python prompt write the following:

```
>>> 1.1 + 2.2 == 3.3
```

Observe the result and explain.

3.
```
>>> a = 5
>>> b = 2
>>> a==5 and b==6 or not(b==3)
```

Observe the value of the above expression and explain.

4.
```
>>> width = 17
>>> height = 12.0
```

For each of the following expressions, write its value and the corresponding type:

i. width//2

ii. width/2.0

iii. height/3

iv. 1 + 2 * 5

Now use the python interpreter to check your answers.

5. Observe the following statement that allows the user to input a value which gets stored in the variable named inp:

```
>>> inp = input()
```

Also, recall the print statement and + operator on strings as discussed in class.

Now, receive an input from the user in variable inp and display on the screen the following:

'The input string is *value*' where *value* is the value of the variable inp.

6. The input() statement can also be used to print a prompt telling the user what to input. You can pass a string to input() to be displayed to the user before pausing for input. For instance, observe the following snippet of code:

```
>>> name = input('What is your name?\n')
What is your name?
Sitare
>>> print(name)
Sitare
```

Use the above understanding to prompt the user for temperature in Celsius, convert it to Fahrenheit, and print out the converted temperature rounded to 2 decimal places.