**Lab Exercise 2. Variables, assignment, types and operators**

**1.** Which of the following are acceptable variable names for Python?

(a) xyzzy - Acceptable

(b) 2ndVar – Not acceptable, it starts with a number

(c) rich&bill – Not acceptable, can’t use operators

(d) long name – Not acceptable

(e) good2go - Acceptable

**2.** Give the values printed by the following program for each of the labeled lines.

int\_a = 27

int\_b = 5

int\_a = 6

print(int\_a) # Line 1

print(int\_b + 5) # Line 2

print(int\_b) # Line 3

(a) What is printed by Line 1? - 6

(b) What is printed by Line 2? - 10

(c) What is printed by Line 3? - 5

**3.** Give the values printed by the following program for each of the labeled lines, and

answer the associated questions.

a\_float = 2.5

a\_int = 7

b\_int = 6

print(a\_int / b\_int) # Line 1

print(a\_int // a\_float) # Line 2

print(a\_int % b\_int) # Line 3

print(int(a\_float)) # Line 4

print(float(a\_int)) # Line 5

(a) Line 1: What is printed? What is its type? - 1.1667 as float

(b) Line 2: What is printed? What is its type? – 2 as float

(c) Line 3: What is printed? What is its type? – 1 as integer

(d) Line 4: What is printed? What is its type? – 2 as an integer

(e) Line 5: What is printed? What is its type? - 7.0 as integer

**4.** Give the values printed by the following program for each of the labelled lines.

a\_int = 10

b\_int = 3

c\_int = 2

print(a\_int + b\_int \* c\_int) # Line 1

print( (a\_int + b\_int) \* c\_int ) # Line 2

print(b\_int \*\* c\_int) # Line 3

(a) What is printed by Line 1? - 16

(b) What is printed by Line 2? - 26

(c) What is printed by Line 3? - 9

**5.** Change the program below to calculate and print the area of a rectangle instead.

from math import pi

r = 12

area = pi \* r \*\* 2

print("The area of a circle with radius", r, "is", area)

Edited Code:

#This will claculate the area of a rectangle with sides side\_a & side\_b

side\_a = 12  
side\_b = 6  
area = side\_a\*side\_b

print("The area of a rectangle of sides", side\_a, 'and',side\_b,'is',area)

Output:

