

## 0.1 Grade 11 Review Part I (Python) – Tracing, Variables, Input, Output

1. Trace through the following code segments and illustrate the output and memory.

a)

OUTPUT

Memory

```
a = 3
b = 9
print(b)
a = b + 2
a = a + b
print(b+3)
print(a)
```

b)

OUTPUT

Memory

```
ans = 10
res = 6
num = ans + res
print(num + 2)
res = num + 3
print(res)
```

2. Write a program that asks the user for three float values, then computes and prints the mean, or average. (Don't worry about the print formatting at this point). eg. User enters 12, 33.4, and 22.1; the mean is  $(12 + 33.4 + 22.1) / 3 = 22.5$
3. A fast food restaurant charges \$1.69 for burgers, \$1.09 for fries, and \$0.99 for a drink. Make sure to use constants.
  - a) Write a point-of-sale program that prompts the employee for the number of burgers, fries, and drinks and then displays the subtotal, the PST (8%), the GST (5%), and the total.
  - b) Modify the program to prompt the employee for the amount tendered and then display the change due.  
(Again, don't worry about print formatting at this point.)
4. Write a program that asks the user for a three-digit integer, finds the sum of the digits of the number, and prints both the number and its digit sum. You must store the number as `int` and may not convert to `str`. (No need to check for incorrect input.)  
eg. User inputs 123; sum of digits is  $1 + 2 + 3 = 6$