

Problem Set 2

Questions taken from UTSC's course: Introduction To Computer Science I

Trace the following code using the memory model

a)

```
my_list = [1, 2, 3, 4]
print(my_list)
my_list[1] = 1
print(my_list)
```

b)

```
my_list = ['a', 'B', 'C', 'd']
print(my_list)
my_list[1] = [1,2]
print(my_list)
```

c)

```
my_list = [4, 3, 2, 1]
print(my_list)
my_list[1:3] = [True, False]
print(my_list)
my_list[0] = my_list[:]
print(my_list)
```

d)

```
my_list = ["MATA31", "CSCA08", "CSCA67", "MATA37", "CSCA08"]
print(my_list)
my_list[0] = my_list[:]
my_list[4] = my_list[:]
print(my_list)
```

e)

```
my_list = ["True", [1, 2, 3, 4], 2, 9]
print(my_list)
my_list[1][3] = bool(my_list[0])
print(my_list)
```

f)

```
a = 1
b = 2
c = 3
print (a, b, c)
(a, b, c) = (b, c, a)
print (c, a, b)
(b, a, c) = (b*c/a, a**c+b, a+b+c)
print (b, c, a)
```

```

g)
my_dict ={"50's":38, "60's":18, "70's":2, "80's":16, "90's":39}
print( my_dict)
my_dict["40's"] = 6
print (my_dict)
my_dict["80's"] = 20
print (my_dict)

h)
my_dict ={"40's":17,"50's":6, "60's":14, "70's":2, "80's":37, "90's":5}
for key in my_dict:
    print (key, my_dict[key])
    my_dict[key] = my_dict[key]*2
    print (my_dict)
del my_dict["80's"]
print (my_dict)

```