**ASSIGNMENT 1**

**Ques 1- Write a Python program to find an average of three numbers entered by the user.**

**Code:**

```
print('\nQuestion 1')

a=int(input('First number='))
b=int(input('Second number='))
c=int(input('Third number='))

print((a+b+c)/3)
```

**Output:**

```
Question 1
First number=45
Second number=35
Third number=78
52.666666666666664
```

**Ques 2 -** Write a python program to compute a person's income tax. Assume following tax laws: • All taxpayers are charged a flat tax rate of 20%.

• All taxpayers are allowed a $10,000 standard deduction.

• For each dependent, a taxpayer is allowed an additional $3,000 deduction.

• Gross income must be entered to the nearest penny.

Gross Income and the number of dependents must be asked from the user. Hint: Taxable income = GrossIncome - Standard deduction - (Dependent deduction * No. of dependents)

**Code:**

```
print('\nQuestion 2')

a=float(input('Gross Income=$'))
b=int(input('Number of Dependents='))
print('Taxable Income=$', str(a-10000.0-(float(3000*b))))
print('Tax=$', str(a-10000.0-(float(3000*b)*0.2)))
```

**Output:**

```
Question 2
Gross Income=$50000
Number of Dependents=2
Taxable Income=$ 34000.0
Tax=$ 38800.0
```

Ques 3- Write a program that asks the user for a number of seconds and prints out how many minutes and seconds that is. For instance, 200 seconds is 3 minutes and 20 seconds. [Hint: Use the //operator to get minutes and the % operator to get seconds.]

**Code:**

```
print('\nQuestion 3')

a=int(input('Time in Second='))
print('Time=', a//60 ," minutes", a%60,'seconds' )
```

**Output:**

```
Question 3
Time in Second=400
Time= 6  minutes 40 seconds
```

Ques 4- Write a python program to add three numbers 25+'25'+25.0 and produce result 75 as string.

**Code:**

```
print('\nQuestion 4')

a=25
b=25
c=25

print('Your sum is=',str(a+b+c))
```

**Output:**

```
Question 4
Your sum is= 75
```

**Ques 5 –** Write a program that prints out the sine and cosine of the angles ranging from 0 to 345◦ in 15◦ increments. Each result should be rounded to 4 decimal places. Sample output is shown below:

```
0 --- 0.0 1.0
15 --- 0.2588 0.9659
30 --- 0.5 0.866
...
345 --- -0.2588 0.9659
```

**Code:**

```
print('\nQuestion 5')

import math
for angle in range(0,346,15):
    print(angle,".....",round(math.sin((angle*math.pi)/180),4),round(math.cos((angle*math.pi)/180),4))
```

**Output :**

```
Question 5
0 ..... 0.0 1.0
15 ..... 0.2588 0.9659
30 ..... 0.5 0.866
45 ..... 0.7071 0.7071
60 ..... 0.866 0.5
75 ..... 0.9659 0.2588
90 ..... 1.0 0.0
105 ..... 0.9659 -0.2588
120 ..... 0.866 -0.5
135 ..... 0.7071 -0.7071
150 ..... 0.5 -0.866
165 ..... 0.2588 -0.9659
180 ..... 0.0 -1.0
195 ..... -0.2588 -0.9659
210 ..... -0.5 -0.866
225 ..... -0.7071 -0.7071
240 ..... -0.866 -0.5
255 ..... -0.9659 -0.2588
270 ..... -1.0 -0.0
285 ..... -0.9659 0.2588
300 ..... -0.866 0.5
315 ..... -0.7071 0.7071
330 ..... -0.5 0.866
345 ..... -0.2588 0.9659
```