```python
'''Name- Dipanshu Panda
SID - 21107085
Branch- Mechanical'''
#Q1. Average of 3 numbers
print("Hello there, you will be required to input three numbers to find their
average")
# First we need to take 3 user input
Number_1 = int(input("Hey user enter your 1st number: "))
Number_2 = int(input("Hey user enter your 2nd number: "))
Number_3 = int(input("Hey user enter your 3rd number: "))
# To calculate average
Average = (Number_1 + Number_2 + Number_3)/3
print(f"The average of numbers entered by you is: {Average}")


#Q2. Tax Calaculator
# Values given in question
Tax_Rate = 20/100
Standard_deduction = 10000
Dependent_deduction = 3000
# User input for Gross income and number of dependents
Gross_Income = int(input("Please enter your Gross Income to the nearest
pennny: $"))
Number_of_dependents = int(input("Please enter number of dependents: "))
# Formula to calculate tax amount
Taxable_Income = Gross_Income - Standard_deduction -
(Dependent_deduction*Number_of_dependents)
Tax = Taxable_Income*Tax_Rate
print(f"Dear user, your Income tax amount is: ${Tax}")


#Q3. Time Converter
# Taking user input
user_sec = int(input("User enter a number of seconds"))
# Converting input to desired form
min = user_sec//60
sec = user_sec%60
print(f"Dear user the amount of seconds you enetered condenses to this: {min}
minutes and {sec} seconds. ")


#Q4. Three numbers addition to produce 75
a = 25
b = '25'
c = 25.0
print(f'The numbers are {a,b,c}')
# Converting Numbers to single form to carry out addition operation
d = a + int(b) + int(c)
print(f"The sum of numbers is {d} ")
```

```python
print(type(d))
# Converting to string format
e = str(d)
print(f"The string format is {e}")
print(type(e))


#Q5. Program to print out sine and cosine
import math
pi  = 22/7
for i in range (0,346,15):
    a = math.sin(i*pi/180)
    b = math.cos(i*pi/180)
    print(f"{i} --- {a} {b}" )
```

OUTPUT: -

Q1.

```
Windows PowerShell
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PS C:\Users\Dipanshu> & C:/Users/Dipanshu/AppData/Local/Programs/Python/Python310/python.exe c:/Users/Dipanshu/Desktop/Python_PEC/Assignment_1.py
Hello there, you will be required to input three numbers to find their average
Hey user enter your 1st number: 23
Hey user enter your 2nd number: 34
Hey user enter your 3rd number: 45
The average of numbers entered by you is: 34.0
PS C:\Users\Dipanshu>
```

Q2.

```
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PS C:\Users\Dipanshu> & C:/Users/Dipanshu/AppData/Local/Programs/Python/Python310/python.exe c:/Users/Dipanshu/Desktop/Python_PEC/Assignment_1.py
Please enter your Gross Income to the nearest pennny: $30000
Please enter number of dependents: 3
Dear user, your Income tax amount is: $2200.0
PS C:\Users\Dipanshu>
```

Q3.

```
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PS C:\Users\Dipanshu> & C:/Users/Dipanshu/AppData/Local/Programs/Python/Python310/python.exe c:/Users/Dipanshu/Desktop/Python_PEC/Assignment_1.py
User enter a number of seconds: 460
Dear user the amount of seconds you enetered condenses to this: 7 minutes and 40 seconds.
PS C:\Users\Dipanshu>
```

Q4.

```
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PS C:\Users\Dipanshu> & C:/Users/Dipanshu/AppData/Local/Programs/Python/Python310/python.exe c:/Users/Dipanshu/Desktop/Python_PEC/Assignment_1.py
The numbers are (25, '25', 25.0)
The sum of numbers is 75
<class 'int'>
The string format is 75
<class 'str'>
PS C:\Users\Dipanshu>
```

Q5.

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL                                                      Python  + ∨  ⊟ 🗑  ∧ ×


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PS C:\Users\Dipanshu> & C:/Users/Dipanshu/AppData/Local/Programs/Python/Python310/python.exe c:/Users/Dipanshu/Desktop/Python_PEC/Assignment_1.py
0 --- 0.0 1.0
15 --- 0.25892082723544074 0.9658985481010492
30 --- 0.5001825021996698 0.86592001044743
45 --- 0.7073302780849811 0.706883213624587
60 --- 0.8662360750607194 0.4996349289865548
75 --- 0.9660620563428199 0.2583100913527811
```

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL                                                      Python  + ∨  ⊟ 🗑  ∧ ×


75 --- 0.9660620563428199 0.2583100913527811
90 --- 0.9999998001333682 -0.000632244591553242
105 --- 0.9657346537574998 -0.25953145961883317
120 --- 0.865603599697109 -0.5007298754732007
135 --- 0.7064358665994588 -0.7077770598019348
150 --- 0.4990871560527388 -0.8665517934106357
165 --- 0.2576992522149857 -0.9662251784174521
180 --- -0.00126448893037729 -0.999999200533553
195 --- -0.26014198825886864 -0.9655703733776854
210 --- -0.5012770485883448 -0.8652868429362359
225 --- -0.7082235585968545 -0.7059882371884165
240 --- -0.8668671653709753 -0.4985391836171859
```

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL                                                      Python  + ∨  ⊟ 🗑  ∧ ×


195 --- -0.26014198825886864 -0.9655703733776854
210 --- -0.5012770485883448 -0.8652868429362359
225 --- -0.7082235585968545 -0.7059882371884165
240 --- -0.8668671653709753 -0.4985391836171859
255 --- -0.9663879142597405 -0.2570883100662269
270 --- -0.9999982012007936 0.0018967327637432732
285 --- -0.9654057070272746 0.26075241291149753
300 --- -0.8649697402914293 0.5018240213263783
315 --- -0.7055403255703919 0.70866977429126
330 --- -0.497991011898937 0.8671821908156744
345 --- -0.2564772651507194 0.966550263804634
PS C:\Users\Dipanshu>
```