1.How many seconds are in an hour? Use the interactive interpreter as a calculator and multiply the number of seconds in a minute (60) by the number of minutes in an hour (also 60).

# How many seconds are in an hour? Use the interactive interpreter as a calculator and

# multiply the number of seconds in a minute (60) by the number of minutes in an hour (also 60).

# sol. 60

# Declare 3 variables and initialize with zero

seconds\_per\_minute = 0

minutes\_per\_hour = 0

seconds\_per\_hour = 0

# Define a function to calculate seconds in an hour.

def secondsinhour(a,b):

return a\*b

# Get inputs from user. no of seconds in a minute, no of minutes in an hour

seconds\_per\_minute = int(input("Enter number of seconds in a minute"))

minutes\_per\_hour = int(input("Enter number of minutes in an hour"))

# call the function seconds\_per\_hour with parameters

# and store the return value in the variable seconds\_per\_hour

seconds\_per\_hour = secondsinhour(seconds\_per\_minute,minutes\_per\_hour)

# print the calculated seconds per hour

print("Seconds per hour is : ",seconds\_per\_hour)

2. Assign the result from the previous task (seconds in an hour) to a variable called seconds\_per\_hour.

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# multiply the number of seconds in a minute (60) by the number of minutes in an hour (also 60).

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minutes\_per\_hour = int(input("Enter number of minutes in an hour"))

# call the function seconds\_per\_hour with parameters

# and store the return value in the variable seconds\_per\_hour

seconds\_per\_hour = secondsinhour(seconds\_per\_minute,minutes\_per\_hour)

# print the value of the variable seconds\_per\_hour

print(seconds\_per\_hour)

3. How many seconds do you think there are in a day? Make use of the variables seconds per hour and minutes per hour.

# How many seconds do you think there are in a day?

# Make use of the variables seconds per hour and minutes per hour.

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# Define a function to calculate seconds in an hour.

def secondsinhour(a,b):

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seconds\_per\_minute = int(input("Enter number of seconds in a minute"))

minutes\_per\_hour = int(input("Enter number of minutes in an hour"))

# call the function seconds\_per\_hour with parameters

# and store the return value in the variable seconds\_per\_hour

seconds\_per\_hour = secondsinhour(seconds\_per\_minute,minutes\_per\_hour)

# print the value of the variable seconds\_per\_hour

print("Seconds per hour is :",seconds\_per\_hour)

seconds\_per\_Day = seconds\_per\_hour \* 24

print("Seconds per day is :",seconds\_per\_Day)

4. Calculate seconds per day again, but this time save the result in a variable called seconds\_per\_day

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# but this time save the result in a variable called seconds\_per\_day

# Declare 3 variables and initialize with zero

seconds\_per\_minute = 0

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# Define a function to calculate seconds in an hour.

def secondsinhour(a,b):

return a\*b

# Get inputs from user. no of seconds in a minute, no of minutes in an hour

seconds\_per\_minute = int(input("Enter number of seconds in a minute"))

minutes\_per\_hour = int(input("Enter number of minutes in an hour"))

# call the function seconds\_per\_hour with parameters

# and store the return value in the variable seconds\_per\_hour

seconds\_per\_hour = secondsinhour(seconds\_per\_minute,minutes\_per\_hour)

# print the value of the variable seconds\_per\_hour

print("Seconds per hour is :",seconds\_per\_hour)

seconds\_per\_Day = seconds\_per\_hour \* 24

print("Seconds per day is :",seconds\_per\_Day)

5. Divide seconds\_per\_day by seconds\_per\_hour. Use floating-point (/) division.

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def secondsinhour(a,b):

return a\*b

# Get inputs from user. no of seconds in a minute, no of minutes in an hour

seconds\_per\_minute = int(input("Enter number of seconds in a minute"))

minutes\_per\_hour = int(input("Enter number of minutes in an hour"))

# call the function seconds\_per\_hour with parameters

# and store the return value in the variable seconds\_per\_hour

seconds\_per\_hour = secondsinhour(seconds\_per\_minute,minutes\_per\_hour)

# print the value of the variable seconds\_per\_hour

print("Seconds per hour is :",seconds\_per\_hour)

seconds\_per\_Day = seconds\_per\_hour \* 24

print("Seconds per day is :",seconds\_per\_Day)

print("Division of seconds per day by seconds per hour",float(seconds\_per\_Day/seconds\_per\_hour))

6. Divide seconds\_per\_day by seconds\_per\_hour, using integer (//) division. Did this number agree with the floating-point value from the previous question, aside from the final .0?

# Divide seconds\_per\_day by seconds\_per\_hour, using integer (//) division.

# Did this number agree with the floating-point value from the previous question, aside from the final

seconds\_per\_minute = 0

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seconds\_per\_hour = 0

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# Get inputs from user. no of seconds in a minute, no of minutes in an hour

seconds\_per\_minute = int(input("Enter number of seconds in a minute"))

minutes\_per\_hour = int(input("Enter number of minutes in an hour"))

# call the function seconds\_per\_hour with parameters

# and store the return value in the variable seconds\_per\_hour

seconds\_per\_hour = secondsinhour(seconds\_per\_minute,minutes\_per\_hour)

# print the value of the variable seconds\_per\_hour

print("Seconds per hour is :",seconds\_per\_hour)

seconds\_per\_Day = seconds\_per\_hour \* 24

print("Seconds per day is :",seconds\_per\_Day)

x = float(seconds\_per\_Day/seconds\_per\_hour)

y = int(seconds\_per\_Day//seconds\_per\_hour)

print("Division of seconds per day by seconds per hour",x)

print("Division of seconds per day by seconds per hour",y)

print("this number agree with the floating-point value from the previous question",x==y)

7. Write a generator, genPrimes, that returns the sequence of prime numbers on successive calls to its next() method: 2, 3, 5, 7, 11, ...

# Write a generator, genPrimes, that returns the sequence of prime numbers

# on successive calls to its next() method: 2, 3, 5, 7, 11, ...

# Define a generator function to print prime numbers

def GenPrimeFunction():

for i in range(2,101):

c = False

for j in range(2,i):

if i%j ==0 and i!=j:

c = True

if c == False:

yield i

c == False

# Create an object of generator function

obj = GenPrimeFunction()

# print the elements of the generator object in the list

print(list(obj))