ASSIGNMENT -15

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).

Ans: *print(60\*60)*

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

Ans: *seconds\_per\_hour = 60\*60*

*print(seconds\_per\_hour)*

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

Ans: *minutes\_per\_hour = 60*

*print(seconds\_per\_hour\*24)*

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

Ans: *seconds\_per\_day = 24\*60\*60*

*print(seconds\_per\_day)*

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

Ans: *print(seconds\_per\_day/seconds\_per\_hour)*

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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?

Ans: *print(seconds\_per\_day//seconds\_per\_hour, end='')*

*print(' -> yes this values agree with the floating point value from the previous question')*

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

Ans:

*def genPrimes():*

*n = 0*

*while True:*

*if n == 2 or n == 3 :*

*yield n*

*elif ((n-1)%6 == 0 or (n+1)%6 == 0) and n !=1:*

*yield n*

*n = n+1*

*output = genPrimes()*

*for ele in range(5):*

*print(next(output))*

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