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).

3600 seconds in hour.

60\*60

3600

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

Seconds\_per\_hour=60\*60

Print(seconds\_per\_hour)

3600

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

86400 seconds per day

minutes\_per\_hour **=** 60

seconds\_per\_hour\*24

86400

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

Seconds\_per\_day=seconds\_per\_hour\*24

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

Seconds\_per\_day/ seconds\_per\_hour

24.0

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?

Seconds\_per\_day//seconds\_per\_hour

24

yes this values agree with the floating point value from the previous question

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

**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** elements **in** range(5):

print(next(output))