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: 60\*60

o/p: 3600

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

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

Second\_per\_hour

o/p: 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.

Ans: One\_Day = 24

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

Seconds\_in\_a\_day

o/p: 86400

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

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

Seconds\_per\_day

o/p: 86400

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

Ans: seconds\_per\_day/seconds\_per\_hour

o/p: 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?

Ans: *# YES this number agrees*

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

o/p: 24

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 = 2

primes = []

while True:

for p in primes:

if n % p == 0:

break

else:

primes.append(n)

yield n

n += 1