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).

sol. 60 \*60 = 3600

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

Sol. second\_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.

Sol. second\_per\_hour\*24 = 86400

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

Sol.seconds\_per\_day = seconds\_per\_hour\*24

==86400

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

Sol. 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?

Sol. seconds\_per\_day/seconds\_per\_hour =24.yes it agrees with floating point value of prev 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, ...

Sol.

def gen\_primes():

n = 2

primes = set()

while True:

for p in primes:

if n % p == 0:

break

else:

primes.add(n)

yield

n += 1