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

Answers.60\*60=3600

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

Answers. 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.

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

=86400

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

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

=86400

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

Answers. seconds\_per\_day/seconds\_per\_hour =24.0

24.0 where the type is changed to floating-point

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?

Answers. seconds\_per\_day/seconds\_per\_hour =24

Value is 24 and type is int

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

Answers.def genPrime():

last=1

primes=[]

while True:

last+=1

for p in primes:

if last%p== 0:

break

else:

primes.append(p)

yield last

gen=genPrime()

print(gen)