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

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

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. seconds\_per\_hour\*24

4. Calculate seconds per day again, but this time save the result in a variable called seconds\_per\_day  
Ans. seconds\_per\_day= seconds\_per\_hour\*24

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

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

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. ef genPrimes():

# Starting from the first prime number

num = 2

primes = []

while True:

is\_prime = True

for prime in primes:

if num % prime == 0:

is\_prime = False

break

if is\_prime:

primes.append(num)

yield num

num += 1

# Create an instance of the generator

prime\_generator = genPrimes()

# Printing the first few prime numbers

for \_ in range(5):

print(next(prime\_generator))