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).

60\*60=3600

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

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

86400

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

24

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?

Yes,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, ...

|  |
| --- |
| def genPrimes(): |
|  | primes = [] |
|  | n = 2 |
|  | last = n |
|  |  |
|  | while True: |
|  | for i in primes: |
|  | if n % i == 0: |
|  | n += 1 |
|  | break |
|  |  |
|  | else: |
|  | primes.append(n) |
|  | last = n |
|  | n += 1 |
|  | yield last |