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

Answer :

**60 seconds/minute \* 60 minutes/hour =** 3600

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

Answer :

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.

Answer :

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

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

Answer :

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

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

Answer :

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?

Answer :

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, ...

Answer :

def genPrimes():

primes = []

candidate = 2

while True:

if all(candidate % p != 0 for p in primes):

primes.append(candidate)

yield candidate

candidate += 1