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: seconds\_per\_minute = 60**

**minutes\_per\_hour = 60**

**seconds\_per\_hour = seconds\_per\_minute \* minutes\_per\_hour**

**seconds\_per\_hour = 3600**

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

**Ans: 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.

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

**seconds\_per\_day = 86400**

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

**Ans: seconds\_per\_day = 86400**

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

**Ans: 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?

**Ans: seconds\_per\_day // seconds\_per\_hour = 24**

**Yes, the values are same aside from .0**

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:**

**def genPrimes():**

**n = 0**

**while True:**

**if n == 2 or n == 3 :**

**yield n**

**elif ((n-1)%6 == 0 or (n+1)%6 == 0) and n !=1:**

**yield n**

**n = n+1**

**output = genPrimes()**

**for num in range(5):**

**print(next(output))**