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:

seconds\_per\_minute=60

minutes\_per\_hour=60

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

3600=60\*60

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\_hour = 3600

minutes\_per\_hour=60

hours\_per\_day=24

hours\_per\_day\*seconds\_per\_hour

86400=24\*3600

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

Answer: seconds\_per\_day=hours\_per\_day\*seconds\_per\_hour

seconds\_per\_day=86400

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

Answer: seconds\_per\_day/seconds\_per\_hour

86400/3600

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?

Answer: seconds\_per\_day//seconds\_per\_hour

86400//3600

24

Yes 24 is the number which is same as previous question aside from the final .().

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