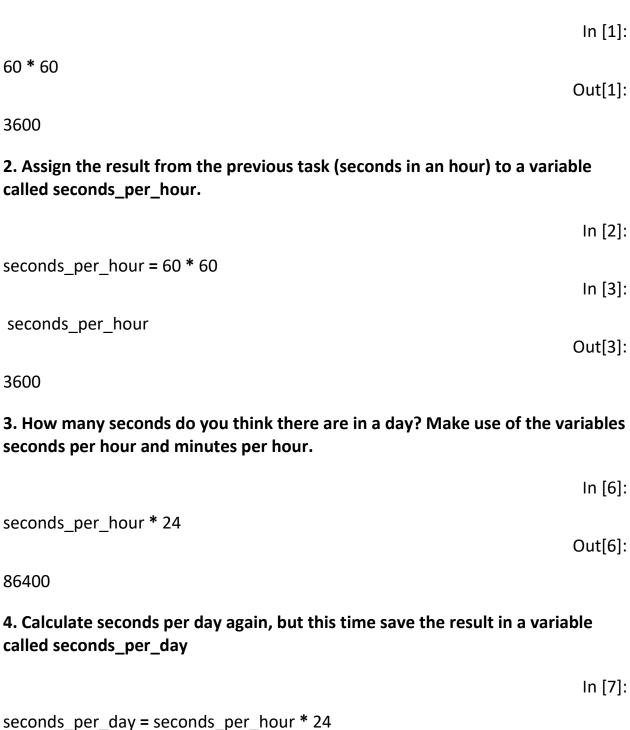
Assignment_15

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).



```
In [8]:
seconds_per_day
                                                                          Out[8]:
86400
5. Divide seconds per day by seconds per hour. Use floating-point (/) division.
                                                                           In [9]:
seconds_per_day / seconds_per_hour
                                                                          Out[9]:
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?
                                                                          In [10]:
seconds_per_day // seconds_per_hour
                                                                         Out[10]:
24
Yes
7. Write a generator, genPrimes, that returns the sequence of prime numbers
on successive calls to its next() method: 2, 3, 5, 7, 11, ...
                                                                          In [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
                                                                         In [12]:
genPrimes()
                                                                        Out[12]:
<generator object genPrimes at 0x0000025AFFEBB0B0>
                                                                         In [14]:
None
def genPrimes():
  primes = [2]
  yield primes[0]
  guess = 3
  while True:
    if all(guess%x != 0 for x in primes):
      primes.append(guess)
    if guess == primes[-1]:
      yield primes[-1]
    guess += 2
                                                                         In [15]:
genPrimes()
                                                                        Out[15]:
<generator object genPrimes at 0x0000025AFFEBB4A0>
```