

# PYTHON 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 [1]: 60 * 60
```

```
Out[1]: 3600
```

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

```
In [2]: seconds_per_hour = 60*60  
seconds_per_hour
```

```
Out[2]: 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`.

```
In [6]: one_day = 24  
one_day * seconds_per_hour
```

```
Out[6]: 86400
```

4. Calculate seconds per day again, but this time save the result in a variable called `seconds_per_day`

```
In [7]: seconds_per_day = one_day * seconds_per_hour  
seconds_per_day
```

```
Out[7]: 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
```

```
In [ ]: 6. Divide seconds_per_day by seconds_per_hour, using integer (//) division. Did t  
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
```

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 [14]: def genPrimes():  
    n = 2  
    primes = []  
    while True:  
        for p in primes:  
            if n % p == 0:  
                break  
        else:  
            primes.append(n)  
            yield n  
        n += 1
```

```
In [ ]:
```