

## Solutions

1. To calculate the number of seconds in an hour, we can multiply the number of seconds in a minute (60) by the number of minutes in an hour (60) using the Python interactive interpreter as a calculator. Here's the calculation:

```
>>> 60 * 60
3600
```

2. `seconds_per_hour = 60 * 60`
3. To calculate the number of seconds in a day, we can use the variables `seconds_per_hour` and `minutes_per_hour` and multiply them by the number of hours and minutes in a day, respectively. There are 24 hours in a day and 60 minutes in an hour.
4. `seconds_per_hour = 60 * 60`  
`seconds_per_day = seconds_per_hour * 24`
5. `seconds_per_hour = 60 * 60`  
`seconds_per_day = seconds_per_hour * 24`  
`seconds_per_day / seconds_per_hour`
6. `seconds_per_hour = 60 * 60`  
`seconds_per_day = seconds_per_hour * 24`  
`seconds_per_day // seconds_per_hour`

```
def genPrimes():
# start with the first prime number
    num = 2
    # loop indefinitely to generate prime numbers
    while True:
        # assume the number is prime
        is_prime = True
        # check if the number is divisible by any smaller number
        for i in range(2, num):
```

```
        if num % i == 0:
            # the number is not prime
            is_prime = False
            break
    if is_prime:
        # yield the prime number
        yield num
        # increment the number for the next
iteration
        num += 1
```