

Program 3: Project Euler Problems 3 and 4

Problem 3 (<https://projecteuler.net/problem=3>)

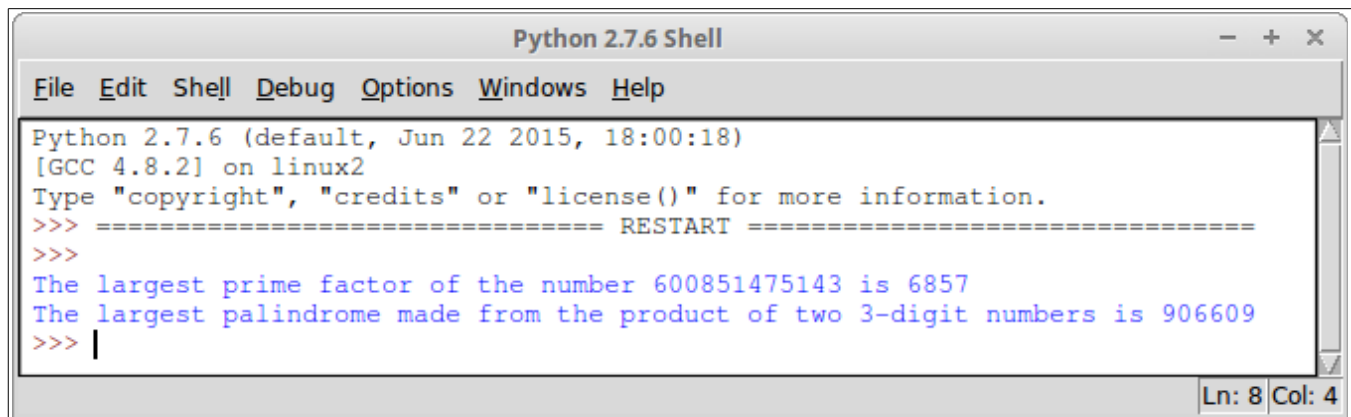
The prime factors of 13,195 are 5, 7, 13, and 29. What is the largest prime factor of the number 600,851,475,143?

Problem 4 (<https://projecteuler.net/problem=4>)

A palindromic number reads the same both ways. The largest palindrome made from the product of two 2-digit numbers is 9009 = 91 × 99. Find the largest palindrome made from the product of two 3-digit numbers.

Again, the Project Euler web site can be accessed at: <https://projecteuler.net/>, and the numeric solutions can be found at: <https://code.google.com/p/projecteuler-solutions/wiki/ProjectEulerSolutions>.

Your task is to write a **single** Python program that solves **both** problems. Here is my output in IDLE:



```
Python 2.7.6 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.6 (default, Jun 22 2015, 18:00:18)
[GCC 4.8.2] on linux2
Type "copyright", "credits" or "license()" for more information.
>>> ===== RESTART =====
>>>
The largest prime factor of the number 600851475143 is 6857
The largest palindrome made from the product of two 3-digit numbers is 906609
>>> |
Ln: 8 Col: 4
```

Homework: Project Euler Problems 3 and 4

Write a **single** Python program that correctly calculates the numeric solutions to **both** Project Euler problems 3 and 4.

Make sure to put an appropriate header at the top of your program and to appropriately comment your source code as necessary. A template that you can choose to use as a starting point will be provided to you. **Only submit your source code (i.e., a single .py file).**