

**THEORY:**

A prime number is a [natural number](#) greater than 1 that has no positive [divisors](#) other than 1 and itself.

The prime factors of 26541 are 3, 3, 3, 983

**TASK:**

Create a program that take one number as an input from user via user interface. The programs task is to find all possible prime factors of that number, but not duplicates. It should print those numbers to screen and make an output file containing asked number and its prime factors.

To make it faster program should also make database file for already requested numbers, so there would not be need to make another search but get valid information from database. If this database file doesn't exist, program should create it. Program should also output how long it took to calculate or get prime factors.

The content, syntax, name, style and etc. of database file can be freely decided by developer.

File name, UI look and feel can be freely chosen, but below is an example for simple (read minimal required implementation.)

Example UI:

```
>python prime_factors.py
```

Give me the number: 26541

Prime factor found: 3

Prime factor found: 983

It took 0,93 seconds to find those

Example output file content:

Prime Factors of number 26541 are

3, 983

It took 0,93 seconds to find those