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1 /* EE231002 Lab03. Consecutive Primes
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3    Date: 2018.10.08
4 */
5 # include <stdio.h>                // include standard library.
6
7 int main (void)                    // main program starts.
8 {
9     int num = 3, div = 2, i = 1, isprime, p = 0; // declare num: 3~600000,
10                                     /* div: division number,
11                                     isprime: whether the number is prime,
12                                     p: to store the last prime number. */
13
14     for (num = 3; num <= 600000; num++){ // let num +1 every time.
15         for (num = 3; num <= 600000; num++) {
16             isprime = 1;                // initial isprime value.
17             for (div = 2; div*div <= num && isprime; div++){
18                 for (div = 2; div * div <= num && isprime; div++) {
19                     // div +1 when div^2 <= num
20                     if (num % div == 0){
21                         if (num % div == 0) {
22                             isprime--;
23                             /* if num can be divided by div,
24                             /* if num can be divided by div,
25                             then isprime -1. */
26                             isprime--;
27                         }
28                     }
29                 }
30             if (isprime == 1){
31                 /* if num can only be divided by
32                 devided
33
34                 if (isprime == 1) {
35                     itself means num is a prime*/
36                     if(p && num == p+2){
37                         /* if p exists and they are
38                         consecutive primes. */
39                         printf("Consecutive primes #%d: %d, %d\n", i++, p, num);
40                         printf("Consecutive primes #%d: %d, %d\n", i++, p, num);
41                         /* print out answer. */
42                         p = num;
43                         /* we store our prime number into p*
44
45 /
46 // Line too long.
47     p = num;
48 }
49 else
50 p = num;
51
52 /* num is a prime but we can't find

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```
33         a pair of consecutive primes
34         temporarily so store it in p */
35     }
36 }
37 return 0;
38 }
```

```
// cpu time: 0.198s
// Can use space more effectively.
// Program need proper indentation.
// Each line should not have more than 80 characters.
// Spelling.
Score: 82
```