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1 /* EE231002 Lab03. Consecutive Primes
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3    Date: 2018/10/8
4 */
5 // Can insert a blank line here.
6 #include <stdio.h> // to call out standard I/O library
7 // Can insert a blank line here.
8 int main (void) // main function begin
9 {
10     int num = 3; // set main number which being examined is it a prime
11     int divide = 2; // set to examine if num is a prime
12     int remain; // to show the remainder of num/divide
13     int prime1 = 0; // set two primes to print on screen
14     int prime2 = 2;
15     int exit = 1; // to decide when this number leave the second loop
16     int no = 1; // number to show on screen after #
17     for (num = 3; num <= 600000; num++){ // loop to examine every number
18         for (num = 3; num <= 600000; num++) {
19             exit = 1; // reset exit
20             divide = 2; // reset divide
21             for (divide = 2; exit == 1; divide++){ /* loop to examine if num is a
22                 for (divide = 2; exit == 1; divide++) {
23                     prime or not by divide num to every number from 2 to num/2+1 */
24                     remain = num % divide; // to get remainder of num/devide
25                     if(remain == 0){ // jump to next number if one remainder = 0
26                         if (remain == 0){
27                             exit = 0;
28                             exit = 0;
29                         }
30                     }
31                     else if(divide * divide >= num){ // direct what to do if it is a pri
32                         me
33                         // line too long.
34                         else if (divide * divide >= num) {
35                             prime1 = prime2; // make previous prime be replaced by new prime
36                             prime1 = prime2;
37                             prime2 = num;
38                             prime2 = num;
39                             if(prime2 - prime1 == 2){ /* to check if those
40                                 if (prime2 - prime1 == 2) {
41                                     two prime are consecutive primes */
42                                     printf ("Consecutive primes #d: %d, %d\n"
43                                         printf("Consecutive primes #d: %d, %d\n" // No space
44                                             , no, prime1, prime2); //print consecutive primes on the
45                                             , no, prime1, prime2);

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31         // ',' should not be the first character of a line.
32         // screen with description in the topic
33         no++;          /* to count how many consecutive
34         no++;          primes on the screen */
35     }
36     exit = 0;          // make prime exit the second loop
37     exit = 0;
38 }
39 return 0;
40     return 0;
41 }
42

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// cpu time: 0.153s  
// Can use space more effectively.  
// Program need proper indentation.  
Score: 80