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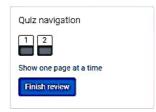


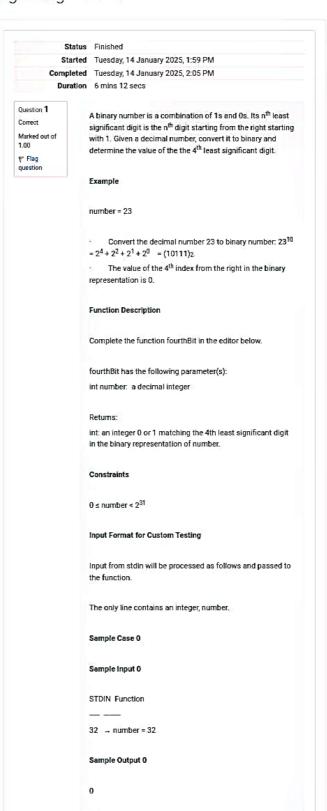




REC-CIS

GE23131-Programming Using C-2024







Explanation 0



4:03 PM 1





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```
Sample Input 0
STDIN Function
32 → number = 32
Sample Output 0
Explanation 0
     Convert the decimal number 32 to binary number: 32<sub>10</sub>
= (100000)2.
    The value of the 4th index from the right in the binary
representation is 0.
Sample Case 1
Sample Input 1
STDIN Function
77 → number = 77
Sample Output 1
Explanation 1
    Convert the decimal number 77 to binary number: 77<sub>10</sub>
= (1001101)2.
The value of the 4th index from the right in the binary
representation is 1.
Answer: (penalty regime: 0 %)
         /*

* Complete the 'fourthBit' function belo

* The function is expected to return an

* The function accepts INTEGER number as

*/
   6
7
8
9
         int fourthBit(int number)
              int binary[32];
              int i=0;
while(number>0)
   11
12
13
14
15
16
17
18
                   binary[i]=number%2;
number/=2;
i++;
              }
if(i>=4)
              return binary[3];
   20
21
22
23
24
25
              return 0;
```





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	Test	Expected	Got	
~	printf("%d", fourthBit(32))	0	0	
_	printf("%d", fourthBit(77))	1	1	İ

Question 2 Correct Marked out of 1.00 F Flag question

Determine the factors of a number (i.e., all positive integer values that evenly divide into a number) and then return the p^{th} element of the list, sorted ascending. If there is no p^{th} element, return 0.

Example

n = 20

p = 3

The factors of 20 in ascending order are $\{1, 2, 4, 5, 10, 20\}$. Using 1-based indexing, if p = 3, then 4 is returned. If p > 6, 0 would be returned.

Function Description

Complete the function pthFactor in the editor below.

pthFactor has the following parameter(s): int n: the integer whose factors are to be found int p: the index of the factor to be returned

Returns:

int: the long integer value of the p^{th} integer factor of n or, if there is no factor at that index, then 0 is returned

Constraints

1 ≤ n ≤ 10¹⁵

1≤p≤10⁹

Input Format for Custom Testing

Input from stdin will be processed as follows and passed to the function.

The first line contains an integer n, the number to factor.

The second line contains an integer p, the 1-based index of the factor to return.

Sample Case 0

Sample Input 0

STDIN Function

10 → n = 10

3 → p=3

Sample Output 0

5

Explanation 0





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```
Explanation 0
Factoring n = 10 results in \{1, 2, 5, 10\}. Return the p = 3^{rd}
factor, 5, as the answer.
Sample Case 1
Sample Input 1
STDIN Function
10 → n = 10
5 → p=5
Sample Output 1
Explanation 1
Factoring n = 10 results in {1, 2, 5, 10}. There are only 4
factors and p = 5, therefore 0 is returned as the answer.
Sample Case 2
Sample Input 2
STDIN Function
1 _ p=1
Sample Output 2
Explanation 2
Factoring n = 1 results in (1). The p = 1st factor of 1 is
returned as the answer.
Answer: (penalty regime: 0 %)
 Reset answer
  21
22
23
24
25 }
               }
           }
return 0;
```





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```
10 → n = 10
5 → p=5
Sample Output 1
Explanation 1
Factoring n = 10 results in {1, 2, 5, 10}. There are only 4
factors and p = 5, therefore 0 is returned as the answer.
Sample Case 2
Sample Input 2
STDIN Function
1 → n=1
1 _ p = 1
Sample Output 2
Explanation 2
Factoring n = 1 results in (1). The p = 1st factor of 1 is
returned as the answer.
Answer: (penalty regime: 0 %)
  Reset answer
           /*
    * Complete the 'pthFactor' function belo
    *
    * The function is expected to return a L
    * The function accepts following paramet
    * 1. LONG_INTEGER n
    * 2. LONG_INTEGER p
    */
    2 * Complete the 'pthFactor' fun

3 * The function is expected to

5 * The function accepts followi

6 * 1. LONG_INTEGER n

7 * 2. LONG_INTEGER p

8 */
9 long pthFactor(long n, long p)

11 *{
                  int count=0;
for(long i=1;i<=n;++i)
{
    if(n%i==0)
    12
13
14
15
    16
17
18
19
20
21
22
23
24
25
                              count++;
if(count==p)
{
    return i;
                        }
                   return 0;
          Test
                                                                Expected G
          printf("%ld", pthFactor(10, 3)) 5
                                                                               0
          printf("%ld", pthFactor(10, 5)) 0
                                                                               1
          printf("%ld", pthFactor(1, 1)) 1
 Passed all tests! 🗸
                                                                  Finish review
```



