ROUND 2

Only one test case is given. You are required to generate more test cases yourself.

Remember the marking scheme. The complexity of the code doesn't matter. Just ensure your code doesn't loop infinitely.

We will test you code on other cases. All the answers of the test cases will not exceed MAX_INT.

Q:1 Write a program to find the sum of factorial of a number and nearest square.

Input: 10

Output: 3628809

Explanation: 3628800 is the factorial of 10 and nearest square number is 9.

(For the square number if there are two choices at equal distance, take the smallest one.)

Q:2 Write a program to find the sum of factorial of a number and nearest prime number.

Input: 10

Output: 3628811

Explanation: 3628800 is the factorial of 10 and nearest prime number is 11.

(For the prime number if there are two choices at equal distance, take the smallest one.)

Q:3 Write a program to find the sum of nearest square and nearest prime number.

Input: 10

Output: 20

Explanation: 9 is nearest square number and nearest prime number is 11.

(For the prime number if there are two choices at equal distance, take the smallest one.)

Q:3 Write a program to find the sum of nearest square and nearest prime number.

Input: 10

Output: 20

Explanation: 9 is nearest square number and nearest prime number is 11.

(For the prime number if there are two choices at equal distance, take the smallest one.)

Q:4 Write a program to find the sum of factorials of all the prime factors of the number. (A prime factor is considered only once)

Input: 20

Output: 7

Explanation: 20 = 2*2*5, Sum = 2+5

Input: 50

Output: 7

Explanation: 50 = 5*5*2, Sum = 2+5

Q:5 Write a program to find the sum of all the prime factors of the number. (A prime factor is added only once)

Input: 20

Output: 124

Explanation: 20 = 2*2*5, Sum = factorial(2) +factorial(5) = 2+120=124

Input: 50

Output: 124

Explanation: 50 = 5*5*2, Sum = factorial(2) +factorial(5) = 2+120=124