King of Prime 🔒 locked

Problem	Submissions	Leaderboard	Discussions

One day you live in the Prime Village, and you want to be a king in that village.
To be a king you have to pass the test. The test is to count number of ways to express N as a sum of K different primes.
Here, two ways are considered to be the same if they sum up the same set of the primes.
For example, 8 can be expressed as 3 + 5 and 5 + 3 but they are not distinguished.
Now finish the test to be a King in Prime Village !

Input Format

First line will contains N , and K.

Constraint:

$1 \le N \le 1120$
$1 \le K \le 14$

Output Format

Print out number of ways to express N as a sum of K different primes. You may assume the output will be less than 2^{31}
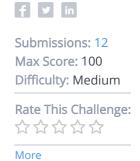
Sample Input

24 3

Sample Output

2

Explanation

There are two ways to express 24 as 3 different primes :
1. 2 + 3 + 19 = 24
2. 2 + 5 + 17 = 24

Submissions: 12
Max Score: 100
Difficulty: Medium

Rate This Challenge:
☆ ☆ ☆ ☆ ☆

More

```c
1  #include <stdio.h>
2  #include <string.h>
3  #include <math.h>
4  #include <stdlib.h>
5
6  int main() {
7
```

```
   8 ▼        /* Enter your code here. Read input from STDIN. Print output to STDOUT */
   9          return 0;
  10  }
  11
```

Line: 1 Col: 1

⬆ Upload Code as File   ☐ Test against custom input

Run Code

Submit Code