Explanation 0

The following sequence of $n = 2$ food items:

1. Item 1 has 1 macronutrients.
2. $1 + 2 = 3$; observe that this is the max total, and having avoided having exactly $k = 2$ macronutrients.

Sample Input 1

```
2
1
```

Sample Output 1

```
2
```

Explanation 1

1. Cannot use item 1 because $k = 1$ and sum $= k$ has to be avoided at any time.
2. Hence, max total is achieved by $sum = 0 + 2 = 2$.

Sample Case 2

Sample Input For Custom Testing

Sample Input 2

```
3
3
```

Sample Output 2

```
5
```

Explanation 2

$2 + 3 = 5$, is the best case for maximum nutrients.

Answer: (penalty regime: 0 %)

```
1  #include<stdio.h>
2  int main() {
3      long long int n,t,i,nut=0;
4      scanf("%lld %lld",&n,&t);
5      for(i=1;i<=n;i++) {
6          nut=nut+i;
7          if(nut==t) {
8              nut=nut-1; }}
9
10     printf("%lld",nut%1000000007);
11 }
```

3

Sample Output 0

5

Explanation 0

Factoring n = 10 we get [1, 2, 5, 10]. We then return the p = 3rd factor as our answer.

Sample Input 1

10
5

Sample Output 1

0

Explanation 1

Factoring n = 10 we get [1, 2, 5, 10]. There are only 4 factors and p = 5. We return 0 as our answer.

Sample Input 2

1
1

Sample Output 2

1

Explanation 2

Factoring n = 1 we get [1]. We then return the p = 1st factor as our answer.

Answer: (penalty regime: 0 %)

```
1  #include<stdio.h>
2  int main() {
3      long long n,p;
4      scant("%lld %lld",&n,&p);
5      long long count=0;
6      for(long long i=1;i<=n;i++) {
7          if(n%i==0) {
8              count++;
9              if(count==p) {
10                 printf("%lld\n",i);
11                 return 0;
12             }
13         }
14     }
15     printf("0\n");
16     return 0;
17 }
```

	Input	Expected	Got	
✓	10 3	5	5	✓
✓	10 5	0	0	✓
✓	1 1	1	1	✓

Passed all tests! ✓

Determine all positive integer values that evenly divide into a number, its factors. Return the pth element of your list, sorted ascending. If there is no p^{th} element, return 0.

For example, given the number $n = 20$, its factors are $\{1, 2, 4, 5, 10, 20\}$. Using 1-based indexing if $p = 3$, return 4. If $p > 6$, return 0.

Complete the code in the editor below. The function should return a long integer value of the pth integer factor of n.

It has the following:

n: an integer

p: an integer

Constraints

- $1 \le n \le 10^{15}$
- $1 < p < 10^9$

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 Input 0

10

3

Sample Output 0

5

Explanation 0

Factoring $n = 10$ we get $\{1, 2, 5, 10\}$. We then return the $p = 3^{rd}$ factor as our answer.

Sample Input 1

10

5

Sample Output 1

0

Explanation 1

Factoring $n = 10$ we get $\{1, 2, 5, 10\}$. There are only 4 factors and $p = 5$. We return 0 as our answer.

Sample Input 2

1

1

Sample Output 2

1

Explanation 2

Factoring $n = 1$ we get $\{1\}$. We then return the $p = 1^{st}$ factor as our answer.

Answer: (penalty regime: 0 %)

bjective

this challenge, we're going to use loops to help us do some simple math. Check out the Tutorial tab to learn more.

ask

iven an integer, n, print its first **10** multiples. Each multiple *n X i* (where **1 ≤ i ≤ 10**) should be printed on a new line
n the form: n x i = result.

nput Format

A single integer, n.

Constraints

2 ≤ n ≤ 20

Output Format

Print **10** lines of output; each line **i** (where **1 ≤ i ≤ 10**) contains the **result** of *n X i* in the form:

n x i - result.

Sample Input

2

Sample Output

2 x 1 - 2
2 x 2 - 4
2 x 3 = 6
2 x 4 = 8
2 x 5 - 10
2 x 6 - 12
2 x 7 = 14
2 x 8 = 16
2 x 9 - 18
2 x 10 - 20

Answer: (penalty regime: 0 %)

```
1  #include<stdio.h>
2  int main() {
3      int n;
4      scanf("%d",&n);
5      for(int i-1;i<-10;i++) {
6          int n-n*i;
7          printf("%d x %d - %d\n",n,i,m);
8      }
9      return 0;
10 }
```

	Input	Expected	Got	
✓	2	2 x 1 - 2	2 x 1 - 2	✓
		2 x 2 - 4	2 x 2 - 4	
		2 x 3 - 6	2 x 3 - 6	
		2 x 4 - 8	2 x 4 - 8	
		2 x 5 - 10	2 x 5 - 10	
		2 x 6 - 12	2 x 6 - 12	
		2 x 7 - 14	2 x 7 - 14	
		2 x 8 - 16	2 x 8 - 16	
		2 x 9 - 18	2 x 9 - 18	
		2 x 10 - 20	2 x 10 - 20	

Passed all tests! ✓

A nutritionist is labeling all the best power foods in the market. Every food item arranged in a single line. will have a
value beginning from 1 and increasing by 1 for each, until all items have a value associated with them. An item's value
is the same as the number of macronutrients it has. For example, food item with value 1 has 1 macronutrient, food
item with value 2 has 2 macronutrients, and incrementing in this fashion.

The nutritionist has to recommend the best combination to patients, i.e. maximum total of macronutrients. However,
the nutritionist must avoid prescribing a particular sum of macronutrients (an 'unhealthy' number), and this sum is
known. The nutritionist chooses food items in the increasing order of their value. Compute the highest total of
macronutrients that can be prescribed to a patient, without the sum matching the given 'unhealthy' number.

Here's an illustration.