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New Year and Hurry 2

locked

Problem

Submissions

Leaderboard

Discussions

Limak is going to participate in a contest on the last day of the 2016. The contest will start at 20:00 and will last four hours, exactly until midnight. There will be n problems, sorted by difficulty, i.e. problem 1 is the easiest and problem n is the hardest. Limak knows it will take him $5 \cdot i$ minutes to solve the i -th problem.

Limak's friends organize a New Year's Eve party and Limak wants to be there at midnight or earlier. He needs k minutes to get there from his house, where he will participate in the contest first.

How many problems can Limak solve if he wants to make it to the party?

Input Format

The only line of the input contains two integers n and k — the number of the problems in the contest and the number of minutes Limak needs to get to the party from his house.

Constraints

- $1 \leq n \leq 10, 1 \leq k \leq 240$

Output Format

Print one integer, denoting the maximum possible number of problems Limak can solve so that he could get to the party at midnight or earlier.

Sample Input 0

```
3 222
```

Sample Output 0

```
2
```

Explanation 0

In the this sample, there are 3 problems and Limak needs 222 minutes to get to the party. The three problems require 5, 10 and 15 minutes respectively. Limak can spend $5 + 10 = 15$ minutes to solve first two problems. Then, at 20:15 he can leave his house to get to the party at 23:57 (after 222 minutes). In this scenario Limak would solve 2 problems. He doesn't have enough time to solve 3 problems so the answer is 2.



Submissions: 29

Max Score: 20

Difficulty: Medium

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C++



```
1 #include <cmath>
2 #include <cstdio>
3 #include <vector>
4 #include <iostream>
5 #include <algorithm>
6 using namespace std;
7
8
9 int main() {
10     int n,k,i,sum,res,c;
11     while(cin>>n>>k)
12     {
13         res=240-k,sum=0,c=0;
14         for(i=1;i<=n;i++)
15         {
16             sum+=5*i;
17             if(sum>res)
18                 break;
19             c+=1;
20         }
21         cout<<c<<"\n";
22     }
23     return 0;
24 }
25
```

Line: 1 Col: 1



Upload Code as File



Test against custom input

Run Code

Submit Code

Testcase 0 ✓

Congratulations, you passed the sample test case.

Click the **Submit Code** button to run your code against all the test cases.

Input (stdin)

```
3 222
```

Your Output (stdout)

```
2
```

Expected Output

```
2
```

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