STUDENT REPORT

DETAILS

Name

T BHOOMIKA

Roll Number

3BR23AI163

EXPERIMENT

Title

DIWALI CONTEST

Description

Max is planning to take part in a Diwali contest at a Diwali Party that will begin at 8 PM and will run until midnight (12 AM) i.e., for 4 hours. He also needs to travel to the party venue within this time which takes him **P** minutes. The contest comprises of **N** problems that are arranged in order of difficulty, with problem 1 being the simplest and problem N being the most difficult. Max is aware that he will require 5*i minutes to solve the ith problem.

Your task is help Max find and return an integer value, representing the number of problems Max can solve and reach the party venue within the given time frame of 4 hours.

Note: Max will leave his home at exactly 8 PM to reach the party venue.

Input Format:

input1: An integer value N, representing the total number of problems.

input2: An integer value P, Representing the time to travel in minutes from his home to the party venue.

Example:

Input:

6

180

Output:

4

Explanation:

The amount of time left to solve the problems is 4*60-180=60 mins.

1st Problem - 5 mins, Time left = 60-5=55 mins

2nd Problem - 10 mins, Time left = 55-10=45 mins

3rd Problem - 15 mins, Time left = 45-15=30 mins

4th Problem - 20 mins, Time left = 30-20=10 mins

5th Problem - 25 mins

So he can solve only 4 problems as he is not left with 25 mins to complete 5th problem.

Source Code:

```
def max_problems_solved(N,P):
    remaining_time=240-P
    time_spent=0
    count=0
    for i in range(1,N+1):
        time_to_solve=5*i
        if time_spent+time_to_solve>remaining_time:
            break
        time_spent+=time_to_solve
        count+=1
    return count
N=int(input())
P=int(input())
result=max_problems_solved(N,P)
print(result)
```

RESULT

5 / 5 Test Cases Passed | 100 %