



# STUDENT REPORT

## DETAILS

Name

Y GOUTHAM KUMAR

Roll Number

3BR23CV023

## 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  $5 \cdot i$  minutes to solve the  $i^{\text{th}}$  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  $4 \cdot 60 - 180 = 60$  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:

```
task=int(input())
time=int(input())
work=0
rem=0
tleft=240-time
for i in range(1,task+1):
    rem+=i*5
    a=tleft-rem
    if a>=0:
        work=i
print(work)
```

#### RESULT

5 / 5 Test Cases Passed | 100 %