Am I Speeding?

DiPS CodeJam 24

Prompt

Here is a simple road:
`4=====`
The 4 means that I cross 4 unit distances per second. The road has 5 '=', so this means that time I need to cross the road is $\frac{5}{4} = 1.25s$.
Here is a more complex road:
`3====7==========4==`
I cross 4 unit distances at 3u/s, 10 unit distances at 7u/s and 2 unit distances at 4u/s. So the time I take to cross the road is $\frac{4}{3} + \frac{10}{7} + \frac{2}{4} = 1.33 + 0.7 + 0.5 = 3.26s$. If the numbers represented the speed limits, the minimum time required to cross the road is 3.26s.
Given a road like the ones above and the time I took to cross the road, can you tell me if I was speeding?

Input Format

- The first line of the input contains an integer n, denoting the number of test cases.
- Each test case comprises of two lines – the first line contains a decimal m, denoting the time I take to cross the road, and the second line contains the road itself.

Output Format

The first and only line of your output must contain a single integer s, denoting the number of times I was speeding.

Constraints

- $10^2 \leq n \leq 10^3$
- Assume single-digit speeds.

Sample Program

```
def solve(t, road):
  actual_time = getTime(road)
  if t<actual_time:
    return True
  else:
    return False

def getTime(road):
  road_arr = []
  for i in road:
    if i.isdigit():
```

```
    road_arr.append([int(i), 0]) # speed, distance
  else:
    road_arr[-1][1]+=1
time = sum( [i[1]/i[0] for i in road_arr] )
return time
```