Programming Assignment-1: Cab and walk

Due on 2020-03-05, 23:59 IST
Arun is working in an office which is N blocks away from his house. He wants to minimize the time it takes him to go from his house to the office. He can either take the office cab or he can walk to the office. Arun's velocity is V1 m/s when he is walking. The cab moves with velocity V2 m/s but whenever he calls for the cab, it always starts from the office, covers N blocks, collects Arun and goes back to the office. The cab crosses a total distance of N meters when going from office to Arun's house and vice versa, whereas Arun covers a distance of $\sqrt{2} \times N$ while walking. Help Arun to find whether he should walk or take a cab to minimize the time.

**Input Format:**
A single line containing three integer numbers N, V1, and V2 separated by a space.

**Output Format:**
Print 'Walk' or 'Cab' accordingly

**Constraints:**

1 <= V1, V2 <= 100

1 <= N <= 200

**Example-1:**

Input:
5 10 15

Output:
Cab

**Example-2:**

Input:
2 10 14

Output:
Walk

**Sample Test Cases**

<table>
<thead>
<tr>
<th>Test Case</th>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Case 1</td>
<td>100 40 60</td>
<td>Cab</td>
</tr>
<tr>
<td>Test Case 2</td>
<td>200 50 80</td>
<td>Cab</td>
</tr>
<tr>
<td>Test Case 3</td>
<td>100 50 50</td>
<td>Walk</td>
</tr>
<tr>
<td>Test Case 4</td>
<td>2 10 14</td>
<td>Walk</td>
</tr>
<tr>
<td>Test Case 5</td>
<td>7 14 10</td>
<td>Walk</td>
</tr>
</tbody>
</table>
The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Sample solutions (Provided by instructor)

```python
n, v1, v2 = input().split()
n = int(n)
v1 = int(v1)
v2 = int(v2)
st_d = pow(2, 1/2)*n
st_t = st_d/v1
el_d = 2*n
el_t = el_d/v2
if(st_t<el_t):
    print("Walk")
else:
    print("Cab")
```

Test Case 6

10 5 5
Walk