Grading Students ☆

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HackerLand University has the following grading policy:

- Every student receives a $grade$ in the inclusive range from 0 to 100.
- Any $grade$ less than 40 is a failing grade.

Sam is a professor at the university and likes to round each student's $grade$ according to these rules:

- If the difference between the $grade$ and the next multiple of 5 is less than 3, round $grade$ up to the next multiple of 5.
- If the value of $grade$ is less than 38, no rounding occurs as the result will still be a failing grade.

For example, $grade = 84$ will be rounded to 85 but $grade = 29$ will not be rounded because the rounding would result in a number that is less than 40.

Given the initial value of $grade$ for each of Sam's n students, write code to automate the rounding process.

Function Description

Complete the function gradingStudents in the editor below. It should return an integer array consisting of rounded grades.

gradingStudents has the following parameter(s):

- grades: an array of integers representing grades before rounding

Input Format

The first line contains a single integer, n, the number of students.

Each line i of the n subsequent lines contains a single integer, $grades[i]$, denoting student i's grade.

Constraints

- $1 \leq n \leq 60$
- $0 \leq grades[i] \leq 100$

Output Format

For each $grades[i]$, print the rounded grade on a new line.

Sample Input 0

```
4
73
67
38
33
```

Sample Output 0

```
75
67
40
33
```

Explanation 0

ID	Original Grade	Final Grade
1	73	75
2	67	67
3	38	40
4	33	33

1. Student 1 received a 73, and the next multiple of 5 from 73 is 75. Since $75 - 73 < 3$, the student's grade is rounded to 75.

2. Student 2 received a 67, and the next multiple of 5 from 67 is 70. Since $70 - 67 = 3$, the grade will not be modified and the student's final grade is 67.

3. Student 3 received a 38, and the next multiple of 5 from 38 is 40. Since $40 - 38 < 3$, the student's grade will be rounded to 40.

4. Student 4 received a grade below 38, so the grade will not be modified and the student's final grade is 33.

Change Theme Python 3

```
16  def gradingStudents(grades):
17      gradeslist = []
18  ##    print(grades)
19
20      # Write your code here
21
22      for grade in grades:
23          #if grade < 40: gradeslist += [grade]
24          #else:
25          #gradefloor = int(math.floor(grade*0.2)/0.2)
26          gradeceil = int(math.ceil(grade*0.2)/0.2)
27
28          #gradeslist += [[gradefloor, gradeceil][gradeceil-grade < grade-gradefloor]]
29
30          if gradeceil-grade > 2 or gradeceil < 40: gradeslist += [grade]
31          else: gradeslist += [gradeceil]
32
```

```
33          #elif grade-gradefloor < 3: gradeslist += [gradefloor]
34
35
36      return gradeslist
37
38  if __name__ == '__main__':
39      fptr = open(os.environ['OUTPUT_PATH'], 'w')
```

Line: 55 Col: 1

Upload Code as File Test against custom input Run Code Submit Code

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46% 146/200

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Next Challenge

Test case 0

Test case 1

Test case 2

Compiler Message

Success

Input (stdin)

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1 4


Test case 3
Test case 4
Test case 5
Test case 6
2 73
3 67
4 38
5 33
Expected Output
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1 75