

Grading Students ★

56.75 more points to get your next star!

Rank: 1162137 | Points: 143.25/200



- Problem
- Submissions
- Leaderboard
- Editorial

RATE THIS CHALLENGE



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.

Examples

- grade* = **84** round to **85** (85 - 84 is less than 3)
- grade* = **29** do not round (result is less than 40)
- grade* = **57** do not round (60 - 57 is 3 or higher)

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.

`gradingStudents` has the following parameter(s):

- `int grades[n]`: the grades before rounding

Returns

- `int[n]`: the grades after rounding as appropriate

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]*.

Constraints

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

Sample Input 0

```
4
73
67
38
33
```

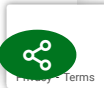
Sample Output 0

```
75
67
40
33
```

Explanation 0

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

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



Change Theme Language Python 3

```
10 # Complete the 'gradingStudents' function below.
11 #
12 # The function is expected to return an INTEGER_ARRAY.
13 # The function accepts INTEGER_ARRAY grades as parameter.
14 #
15
16 def gradingStudents(grades):
17     rounded_grades = []
18     for grade in grades:
19         if grade < 38:
20             rounded_grades.append(grade)
21         else:
22             next_multiple = (grade // 5 + 1) * 5
23             if next_multiple - grade < 3:
24                 rounded_grades.append(next_multiple)
25             else:
26                 rounded_grades.append(grade)
27     return rounded_grades
28
29 if __name__ == '__main__':
30     fptr = open(os.environ['OUTPUT_PATH'], 'w')
31
32     grades_count = int(input().strip())
33
34     grades = []
35
36     for _ in range(grades_count):
37         grades_item = int(input().strip())
38         grades.append(grades_item)
39
40     result = gradingStudents(grades)
41
42     fptr.write('\n'.join(map(str, result)))
43     fptr.write('\n')
44
45     fptr.close()
46
```

Line: 46 Col: 1

[Upload Code as File](#) ☐ Test against custom input

Run Code

Submit Code

Congratulations!

You have passed the sample test cases. Click the submit button to run your code against all the test cases.

✔ Sample Test case 0

Download

1	4
2	73
3	67
4	38
5	33

Your Output (stdout)

1	75
2	67
3	40
4	33

Expected Output

Download

1	75
2	67
3	40
4	33

Blog | Score