

Problem K. Grading Students

OS Linux

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

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

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

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 **33**, so the grade will not be modified and the student's final grade is **33**.