



# Practice Arena

Practice problems aimed to improve your coding skills.

- 📁 PRACTICE-02\_SCAN-PRINT
- 📁 PRACTICE-03\_TYPES
- 📁 LAB-PRAC-02\_SCAN-PRINT
- 📁 LAB-PRAC-01
- 📁 PRACTICE-04\_COND
- 📁 BONUS-PRAC-02
- 📁 LAB-PRAC-03\_TYPES
  - ❓ FIFA Fever
  - ❓ Matrix Math
  - ❓ The Tale of Three Lines
  - ❓ Fiery FIFA Fever
  - ❓ The Final Rational
  - ❓ Quadratic Quandary
  - ❓ FIFA Fractions
  - ❓ Digit Dilemma
  - ❓ Recursive Recharge
  - ❓ Breaking the Lego Safe
  - ❓ The Final Rational Revisited
  - ❓ Developing an interest in interest
- 📁 PRACTICE-05\_COND-LOOPS
- 📁 LAB-PRAC-04\_COND
- 📁 LAB-PRAC-05\_CONDLLOOPS
- 📁 PRACTICE-07\_LOOPS-ARR
- 📁 LAB-PRAC-06\_LOOPS
- 📁 LAB-PRAC-07\_LOOPS-ARR
- 📁 LABEXAM-PRAC-01\_MIDSEM
- 📁 PRACTICE-09\_PTR-MAT
- 📁 LAB-PRAC-08\_ARR-STR
- 📁 PRACTICE-10\_MAT-FUN
- 📁 LAB-PRAC-09\_PTR-MAT
- 📁 LAB-PRAC-10\_MAT-FUN
- 📁 PRACTICE-11\_FUN-PTR
- 📁 LAB-PRAC-11\_FUN-PTR
- 📁 LAB-PRAC-12\_FUN-STRUC
- 📁 LABEXAM-PRAC-02\_ENDSEM
- 📁 LAB-PRAC-13\_STRUC-NUM
- 📁 LAB-PRAC-14\_SORT-MISC

# The Final Rational Revisited

## LAB-PRAC-03\_TYPES

## The Final Rational [20 marks]

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### Problem Statement

You are given a rational number  $N$  with 6 digits after the decimal point. You have to first output the number formed by the digits after the decimal place - call this number  $P$ . Then find the number formed by reversing the six digits (call this new number  $Q$ ) and output the sum  $P+Q$  on **a different line**. For example if the number is 123.456789, then  $P = 456789$  and  $Q = 987654$  and so the output should be 456789 and 1444443. Both outputs should be given on two separate lines.

### Caution

1. Be careful about extra/missing lines and extra/missing spaces.
2. Give both numbers on different lines
3. Note that you don't have to output the digits themselves i.e. if the digits after the decimal place are 0, 0, 5, 6, 1, 2, you have to output 5612 and not 005612.
4. Be careful that there is no guarantee how many digits the number has *before* the decimal point. Only the number of digits after the decimal point are known to be 6.

### HINTS:

1. You may require the use of `math.h` functions for which `math.h` has been included for you. However, it is **not necessary to use `math.h` functions** to solve this problem.
  2. If you are facing precision issues, **use a double variable** instead of float variable to perform calculations.
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### INPUT:

$N$

where  $N$  is a floating point value with 6 digits after the decimal

### OUTPUT:

Number  $P$  formed out of digits after the decimal point

$P + Q$  where  $Q$  is the number formed by reversing **all the digits** after the decimal point

### EXAMPLE:

INPUT

123.456789

OUTPUT:

456789

1444443

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### Grading Scheme:

Total marks: **[20 Points]**

There will be partial grading in this question. There are two lines in your output. Giving correct output in each line carries 50% of the marks. Each visible test case is worth 2 points and each hidden test case is worth 4 points. There are 2 visible and 4 hidden test cases. Ensure that there are no missing/extra spaces or missing/extra lines in your output.

Please remember, however, that when you press Submit/Evaluate, you will get a green bar only if all parts of your answer are correct. Thus, if your answer is only partly correct, Prutor will say that you have not passed that test case completely, but when we do autograding afterwards, you will get partial marks.

 **Start Solving! (/editor/practice/6028)**