

# DMOPC '17 Contest 3 P0 - 2-Satisfiability

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Roger is buying his friends Victor and Andrew presents! He has a budget of  $\$B$  to buy the two presents with. The *satisfiability* is equal to the product of the amount of money spent on Victor's present multiplied by the amount of money spent on Andrew's present. What partitioning of the budget will result in the greatest satisfiability?

**Hint:** The satisfiability can be expressed as a function  $f(x) = x(B - x)$ . This is a quadratic curve, and has a maximum value at  $x = \frac{B}{2}$ .

## Constraints

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$$1 \leq B \leq 10^9$$

## Input Specification

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The input will contain a single integer,  $B$ .

## Output Specification

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Two space-separated numbers, the amount spent on the two presents, in any order, **to two decimal places**.

## Sample Input 1

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4

## Sample Output 1

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\$2.00 \$2.00

## Sample Input 2

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1

## Sample Output 2

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\$0.50 \$0.50