Problem L. Last of Us in Sanaati

Doll is a last-semester student at Sanaati University. She is getting her only grade this semester (g). In order to pass the course, she needs to get at least 10, and In order to not get Mashroot, she needs to get at least 12. Since she is terrible at math, help her figure out the minimum extra grade she needs in order to get to her goal.

Input

The first line of input contains g, the grade she took ($0 \leq g \leq 10$).
The second line of input is Doll's goal, one of "PASS", "MASHROOT".

Output

In one line, print the minimum extra grade she needs to get to her goal. **Print exactly 2 decimal points!**

Examples

test	answer
1 PASS	9.00
5.5 PASS	4.50
9 MASHROOT	3.00