

Problem 1 – Gandalf's Stash

Gandalf the Gray is a great wizard but he also loves to eat. When he is hungry he gets angry. These are some of Gandalf's favorite types of food:

- **Cram**: 2 points of happiness;
- **Lembas**: 3 points of happiness;
- **Apple**: 1 point of happiness;
- **Melon**: 1 point of happiness;
- **HoneyCake**: 5 points of happiness;
- **Mushrooms**: -10 points of happiness;
- Everything else: -1 point of happiness;

Gandalf moods are:

- **Angry** - below -5 points of happiness;
- **Sad** - from -5 to 0 points of happiness;
- **Happy** - from 0 to 15 points of happiness;
- **Special JavaScript mood** - when happiness points are more than 15;

Input

The input comes from the console. It will hold two lines: first - Gandalf's first mood.

On the second line will be described the foods that Gandalf will eat, separated with different symbols or whitespace(s). Comparing the input is **case-insensitive**. The input data will always be valid and in the format described. There is no need to check it explicitly.

Output

Print on the console Gandalf's happiness points and mood after he drinks his beers.

Constraints

- The characters in the input string will be no more than: **1000**.
- The food count would be in the range **[1...100]**.
- Time limit: 0.3 sec. Memory limit: 16 MB.

Examples

Input	Output
-10 Cram, banica,Melon!_,HonEyCake, !HoneYCake,hoNeyCake_;	7 Happy
-30 gosho, pesho, meze, Melon, HoneyCake@;	-27 Angry
-3 HoneyCake honeyCake honeyCake HoneyCakE HoneYCake HonEyCake HoneyCake HoneyCake HoneyCake HoNeyCake	47 Special JavaScript mood
-2 mELon, AMelon, beer,cRam, nacepin	-2 Sad