Clown Brothers Inc.

Larry and Gary are twin brothers. They've always clowned around when they were young, and now they are opening up a clown business. Larry wants to name it "Larry's Red Nose Complex," while Gary wants to name it "Gary's Slap Stick Inc." They argue and argue and argue until Larry finally says "Alright enough! I have an idea. We will take turns to try and make the other person laugh. Whoever gets the last laugh, wins, and gets to name our company!" They shook on the plan, and of course, they were both too brilliant to come to a conclusion by nightfall, so they compromised to "Clown Brothers Inc." They fear these problems will arise again, so they hired you to let them know who wins their arguments.

Input

Input begins with a single integer *A*, the number of arguments the twins have. Each argument is described as a series of "Ha!"'s, followed by "..." Each Ha! represents one of the brothers laughing. When the "..." shows, it means the argument is over, and whoever had the last laugh wins the argument. The next line begins the next argument. An argument always begins with Larry trying to make Gary laugh.

Output

Output a single line per argument, saying "<name> won the argument!", where <name>, of course, is the name of the brother who won.

Sample Input

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Ha!

Ha!

Ha!

Ha!

Ha!

...

Sample Output

Gary won the argument! Larry won the argument! Gary won the argument!