PLAYGAME

Hemlata and Ritu were playing a game from a number of coins. Hemlata was jealous of Ritu. She wanted to win at all cost. A stack consists of **n** coins. Any player can take either 1, 2 or 5 (anyone number of coins) coins from stack at a time. Both Hemlata and Ritu play their moves alternatively.

Hemlata always starts first. Both play optimally. Your job is to predict the output beforehand. A player who can't take any coin loses the game. A player can take only one of 1, 2, 5 number of coins at a time in a move.

Input

First line contains number of testcases **t**. 0 < **t** <= 10^5

An integer **n** denoting number of coins. 0 <= **n** <= 10^18

Output

For each testcase printf "Hemlata" if Hemlata wins, else print "Ritu" if Ritu wins (without quotes) in different lines .

Example

Input:
3
1
2
3

Output:
Hemlata
Hemlata
Ritu