Totient Game

Bahl and Debnath are always looking up for new exciting games on the internet. Yesterday, Bahl stumbled across a new game known as "Totient Game". He immediately showed that to Debnath. They found it pretty exciting and decided to play it. The game is as follows:

1. The game is played with N piles of stones.
2. 2 players play alternatively and at each turn a player selects a pile and divides it into two unequal sized piles "i" and "j" such that Totient(i)*Totient(j)=Totient(i*j) and i+j = no. of stones in that pile.
3. The player who is unable to make a move loses the game.

Bahl insists on starting the game first. Can you predict the winner of the game? **Assume that both player plays optimally.**

http://en.wikipedia.org/wiki/Euler%27s_totient_function

Input

First line gives T, the number of test cases.

Each test starts with a line containing "N", the number of piles.

Next line gives N space separated integers. The ith integer represents the number of stones in the ith pile.

Output

Output T lines each containing the winner of the T games. Output "Bahl" if Bahl wins the game or "Debnath" if Debnath wins the game.

Constraints

1<=T<=10
1<=N<=10^5
1<= No. of stones in each pile <=10^7

Example

Input:

1

3

1 2 3

Output:
Bahl