Prime game

Aayush and Akash now want to play a game which involves prime numbers. So They play following game. They first decide a postive integer N (1<=N<=100000) and take their turn one by one. In each turn a player must delete a digit from the number. Game ends when the number becomes less than 10 or prime. Whoever can't make a move looses. Aayush always play first.

Clarification about deletion:

Deleting 2 from 123 will leave 13

Deleting 1 from 103 will leave 3

Deleting 2 from 200 will leave 0

Input

First line contains T (1<=T<=10000), the number of test cases. Following T lines contain 1 integer each, the value of N.

Output

For each test case print "Aayush" if Aayush wins else print "Akash".

Example

Input:

2

5

14

Output:

Akash

Aayush