Problem J. Jumping Game

Input file:	*standard input*
Output file:	*standard output*
Time limit:	1 second
Memory limit:	1024 mebibytes

The rules of the game are simple.

There is a chessboard with r rows and c columns with a chess knight on it. The cell at the i-th row from the top and the j-th column from the left is called square (i, j). Initially, the knight is placed on square (r_s, c_s).

Annapurna and Brahma alternately take the following action, starting with Annapurna:

- Move the knight onto one of the squares on the board that the knight has never visited since the beginning of the game. Remember that knights can move from (x_1, y_1) to (x_2, y_2) if and only if $(x_1 - x_2)^2 + (y_1 - y_2)^2$ is 5.

The player who cannot move the knight loses the game, and their opponent is declared the winner. Determine whether Annapurna or Brahma will win if both play optimally.

Input

The first line of input contains an integer t: the number of test cases ($2 \le t \le 2 \cdot 10^5$).

Each of the following t lines contains four integers, r, c, r_s and c_s: the number of rows and columns of the board, as well as the starting row and column for the knight, respectively ($1 \le r, c \le 10^9$; $1 \le r_s \le r$; $1 \le c_s \le c$).

Output

Output t lines. On the i-th line, print the name of the winner for the i-th test case: `Annapurna` or `Brahma`.

Example

standard input	*standard output*
2 6 6 6 6 7 19 7 3	Annapurna Brahma