

# Problem 1: RGB for You and Me

## 3 Points

Problem ID: `rgb`

Rank: 1

## Introduction

A [Bayer filter](#) is a type of color filter array, or CFA. It represents the pattern of red, green, and blue color filters on a grid of photosensors, and is most commonly used in the image sensors of digital cameras. The filter is unique in the way that it uses twice as many green sensors as red or blue sensors.

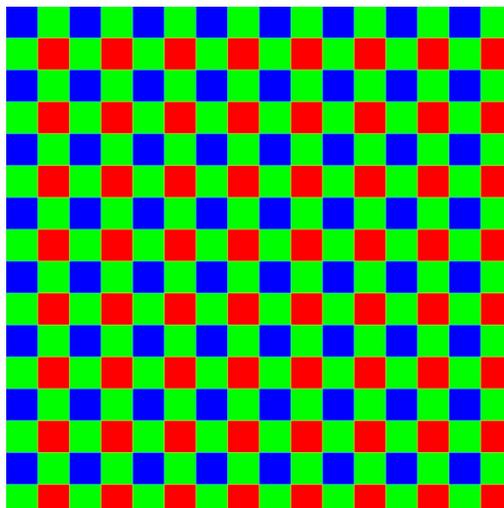
## Problem Statement

Your task is to create a program that will output a Bayer filter with **R** rows and **C** columns.

A Bayer filter is defined as follows:

- Red, green, and blue color filters should be represented by the characters R, G, and B respectively
- The top-left corner of the filter should contain a blue color filter
- Every slot adjacent to a blue or red color filter (excluding diagonals) should contain a green color filter
- Every slot diagonal to a blue color filter should contain a red color filter, and vice versa

Here's an image of a 16x16 Bayer filter for reference:



## Input Format

The first line of the input contains a positive integer **T** denoting the number of test cases that follow. For each test case:

- A single line consists of two integers **R C** separated by an  $\times$  where:
  - The positive integer value **R** denotes the number of rows the Bayer filter must have
  - The positive integer value **C** denotes the number of columns the Bayer filter must have

## Output Format

For each test case, your program should output a Bayer filter with the dimensions **R** and **C**. Each test case output should be separated by a blank line.

## Problem Constraints

$$1 \leq T \leq 100$$

$$1 \leq R, C \leq 100$$

The sum of  $R \times C$  across all test cases does not exceed  $10^5$ .

# Sample Test Cases

## Sample Input

3  
1x8  
2x2  
6x5

## Sample Output

BGBGBGBG

BG  
GR

BGBGB  
GRGRG  
BGBGB  
GRGRG  
BGBGB  
GRGRG