

Write a Java Program to solve each one of the problem. Please name your project as mention in the question. Save all your project into one folder called **firtsname_lastname_Java_C9_HW** and compress the folder and upload into the Google Class Room

- 1) **Lockers.Java.** Your are in a locker room with 100 open lockers, numbered 1 to 100. Toggle all of the lockers that are even. By *toggle*, we mean close if it is open, and open if it is closed. Now toggle all of the lockers that are multiples of three. Repeat with multiples of 4, 5, up to 100. Print the locker numbers that are opened in one line

2) **2D Array Problem**

MagicSquares.Java

Problem Description

Magic Squares are square arrays of numbers that have the interesting property that the numbers in each column, and in each row, all add up to the same total.

Given a 4 x 4 square of numbers, determine if it is magic square.

Input Specification

The input consists of four lines, each line having 4 space-separated integers.

Output Specification

Output either magic if the input is a magic square, or not magic if the input is not a magic square.

Sample Input 1

```
16 3 2 13
5 10 11 8
9 6 7 12
4 15 14 1
```

Output for Sample Input 1

magic

Explanation for Output for Sample Input 1

Notice that each row adds up to 34, and each column also adds up to 34.

Sample Input 2

```
5 10 1 3
10 4 2 3
1 2 8 5
3 3 5 0
```

Output for Sample Input 2

not magic

Explanation for Output for Sample Input 2

Notice that the top row adds up to 19, but the rightmost column adds up to 11.