# Linked List Matrix Multiplication

Problem Code: **LMAD**



All submissions for this problem are available.

My Submissions (/MOPC2018/status/LMAD,jackyone) All Submissions (/MOPC2018/status/LM

Successful Submissions +

Problem description

Davy wants to do the matrix multiplication using Linked List, so help her to write the program

## Input

**T** is the number of test cases as follows
**m** and **n** of numbers of rows and columns for the first matrix i.e.,$a1_{1\ 1}$, $a1_{1\ 2}$...$a1_{m\ n}$.
**n** and **k** represents number of rows and columns for the second matrix i.e., $a2_{1\ 1}$, $a2_{1\ 2}$...$a2_{n\ k}$.

## Output

Output should provide a matrix $a3_{1\ 1}$, $a3_{1\ 2}$...$a3_{m\ k}$(Linked List)

## Constraints

- **1 ≤ T ≤ 10**
- **1 ≤ m ≤ 100**
- **1 ≤ n ≤ 100**
- **1 ≤ k ≤ 100**
- $a1_{1\ 1}$, $a1_{1\ 2}$...$a1_{m\ n}$
- $a2_{1\ 1}$, $a2_{1\ 2}$...$a2_{n\ k}$
- $a3_{1\ 1}$, $a3_{1\ 2}$...$a3_{m\ k}$

## Example

```
Input:
2
3
3
1-> 2-> 3->\n
4-> 5-> 6->\n
7-> 8-> 9->\n
3
3
10-> 11-> 12->\n
13-> 14-> 15->\n
16-> 17-> 18->\n
2
3
1-> 2-> 3->\n
4-> 5-> 6->\n
4
3
7-> 8-> 9->\n
10-> 11-> 12->\n
13-> 14-> 15->\n
16-> 17-> 18->\n

Output:
3
3
84-> 90-> 96->\n
201-> 216-> 231->\n
318-> 342-> 366->\n
The Matrix Multiplication is not possible

Explanation
The matrix will look like
84-> 90-> 96->\n
 |          |         |
 v         v        v
201-> 216-> 231->\n
 |          |         |
 v         v        v
318-> 342-> 366->\n
 |         |       |
 v        v      v
\n       \n     \n
```

| | |
|---|---|
| Author: | vijaykumarakv (/users/vijaykumarakv) |
| Tags: | vijaykumarakv (/tags/problems/vijaykumarakv) |
| Date Added: | 26-02-2018 |
| Time Limit: | 1 secs |
| Source Limit: | 50000 Bytes |
| Languages: | C, CPP14, JAVA, PYTH 3.5, PYPY, CS2, RUBY, PHP, GO, NODEJS, HASK, rust, SCALA, swift, D, PERL, WSPC, ADA, CAML, ICK, BF, CLPS, PRLG, ICON, SCM qobi, PIKE, ST, NICE, LUA, LISP sbcl, LISP clisp, SCM guile, ERL, TCL, kotlin, TEXT, SCM chicken |

## Comments ▸

**CodeChef (http://www.codechef.com) - A Platform for Aspiring Programmers**

CodeChef was created as a platform to help programmers make it big in the world of algorithms, **computer programming** and **programming contests**. At CodeChef we work hard to revive the geek in you by hosting a **programming contest** at the start of the month and another smaller programming challenge in the middle of the month. We also aim to have training sessions and discussions related to **algorithms**, **binary search**, technicalities like **array size** and the likes. Apart from providing a platform for **programming competitions**, CodeChef also has various algorithm tutorials and forum discussions to help those who are new to the world of **computer programming**.

**Practice Section (https://www.codechef.com/problems/easy) - A Place to hone your 'Computer Programming Skills'**

Try your hand at one of our many practice problems and submit your solution in a language of your choice. Our **programming contest** judge accepts solutions in over 35+ programming languages. Preparing for coding contests were never this much fun! Receive points, and move up through the CodeChef ranks. Use our practice section to better prepare yourself for the multiple **programming challenges** that take place through-out the month on CodeChef.

**Compete (https://www.codechef.com/problems/easy) - Monthly Programming Contests and Cook-offs**

Here is where you can show off your **computer programming skills**. Take part in our 10 day long monthly coding contest and the shorter format Cook-off **coding contest**. Put yourself up for recognition and win great prizes. Our **programming contests** have prizes worth up to INR 20,000 (for Indian Community), $700 (for Global Community) and lots more CodeChef goodies up for grabs.

**Programming Tools**

Online IDE (https://www.codechef.com/ide)

Upcoming Coding Contests (http://www.codechef.com/contests#FurtureContests)

Contest Hosting (http://www.codechef.com/hostyourcontest)

Problem Setting (http://www.codechef.com/problemsetting)

CodeChef Tutorials (http://www.codechef.com/wiki/tutorials)

CodeChef Wiki (https://www.codechef.com/wiki)

**Practice Problems**

Easy (https://www.codechef.com/problems/easy)

Medium (https://www.codechef.com/problems/medium)

Hard (https://www.codechef.com/problems/Hard)

Challenge (https://www.codechef.com/problems/challenge)

Peer (https://www.codechef.com/problems/extcontest)

School (https://www.codechef.com/problems/school)

FAQ's (https://www.codechef.com/wiki/faq)

**Initiatives**

Go for Gold (http://www.codechef.com/goforgold)

CodeChef for Schools (http://www.codechef.com/school)

Campus Chapters (http://www.codechef.com/campus_chapter/about)