

# 悼念 512 汶川大地震遇难同胞——老人是真饿了

Time Limit: 1000/1000 MS (Java/Others) Memory Limit: 32768/32768 K (Java/Others)

Total Submission(s): 14614 Accepted Submission(s): 6174

## Problem Description

时间：2008 年 5 月 16 日（震后第 4 天）

地点：汶川县牛脑寨

人物：羌族老奶奶

【转载整理】牛脑寨是一个全村 600 多人的羌族寨子，震后几天，这里依然能常常听到隆隆的声音，那是对面山上石头不断滑落的声音。在完成整个突击队的抢修移动基站的任务后，我提着相机开始记录这里的受创情况。

突然，我的视线里出现一个羌族老人，这让我无比的震惊，要知道，那是一个极陡的坡，这个佝偻着腰的老人是怎么艰难地爬上来的？她上来做什么？



老人背后是极陡的坡，她只有一只眼睛有依稀的视力，望着满地废墟，她徘徊了很久。家在哪里，她极力地用很低的视力找寻着。她曾经的家就在旁边，但是满目废墟已经让老人看不出来。她举目远眺，期望那里能看到家的一点点痕迹。原来家就在旁边，左手抓住一个房檐，努力让自己站住，地震过去三天了，她第一次回到曾经的家。



一个倒塌的柜子，里面装着一丝希望，老人很吃力地搬动掩盖在柜子上的薪柴。老人找到一把木匠用的刨子，老泪纵横，或许有哪个逝去的亲人是木匠。睹物思人，逝者已矣。



继续找，一把散碎的挂面出现在我的眼前。她颤颤巍巍地捞起铺满灰尘的挂面，再次流出了眼泪.....

看着她仔细地把挂面放进胸前的围腰里，我顿然感觉到，这是老人在得到外援之前赖以生存的口粮了，如果不是交通中断，外部救援进不来，老人家又何必拖着 80 多岁的躯体，强忍失去亲人的痛苦，重新回到这夺取她亲人生命的废墟，寻找这点点挂面？老人是真饿了.....



老人佝偻着腰，低声喃喃地念着那两句话“你们走了，我可怎么活”，拿着那对我们身处城市的人们微不足道的挂面，远去了.....

PS: 拍完这组照片后我才知道，5月14号军用运输飞机第一次给汶川空投救援物资就掉在牛脑寨，受灾的村民们没有占为己有，而是汗流浹背地走了两个小时背到山下的县城交给政府。

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对于幸存的灾民来说，最急待解决的显然是温饱问题，救灾部队一边在组织人员全力打通交通，一边在组织采购粮食。现在假设下拨了一定数量的救灾经费要去市场采购大米（散装）。如果市场有  $m$  种大米，各种大米的单价和重量已知，请问，为了满足更多灾民的需求，最多能采购多少重量的大米呢？

### Input

输入数据首先包含一个正整数  $C$ ，表示有  $C$  组测试用例，每组测试用例的第一行是两个整数  $n$  和  $m$  ( $0 < n \leq 1000, 0 < m \leq 1000$ )，分别表示经费的金额和大米的种类，然后是  $m$  行数据，每行包含 2 个整数  $p$  和  $h$  ( $1 \leq p \leq 25, 1 \leq h \leq 100$ )，分别表示单价和对应大米的重量。

### Output

对于每组测试数据，请输出能够购买大米的最多重量（你可以假设经费买不光所有的大米）。

每个实例的输出占一行，保留 2 位小数。

### Sample Input

```
1
7 2
3 3
4 4
```

## Sample Output

2.33

# 悼念 512 汶川大地震遇难同胞——来生一起走

Time Limit: 1000/1000 MS (Java/Others) Memory Limit: 32768/32768 K (Java/Others)

Total Submission(s): 3696 Accepted Submission(s): 1876

## Problem Description

妈妈  
你别哭  
泪光照亮不了  
我们的路  
让我们自己  
慢慢的走

妈妈  
我会记住你和爸爸的模样  
记住我们的约定  
来生一起走



上面这首诗节选自一位诗人纪念遇难同胞的作品，并没有华丽的语言，但是每位读者都应该能感受到作品传达的浓浓爱意，也许还有丝丝无奈。确实，太多的关于孩子不幸的报道冲击着我们每一颗柔弱的心。正如温家宝总理所说“多难兴邦”，这场灾难让我们很多 80 后的年轻人一下子成熟了起来，其中很多人以自愿者的身份走上了抗震救灾的第一线。

今天，灾区又来了  $n$  位志愿者，抗震救灾指挥部需要将他们分为若干个小组，小组的数量不限，但是要求每个小组的人数必须为素数，请问我们有几种分组的方法呢？

特别说明：

- 1、可以只有一个组；
- 2、分组的方法只和人数有关，而与具体的人员无关，即：你可以假设人是有区别的。

## Input

输入数据首先包含一个正整数  $C$ ，表示有  $C$  组测试用例，然后是  $C$  行数据，每行包含一个正整数  $n$  ( $2 \leq n \leq 150$ )，表示志愿者的总人数。

## Output

对于每组测试数据，请输出分组的方案数目，每个输出占一行。

## Sample Input

```
3
3
3
4
5
```

## Sample Output

```
1
1
2
```

# Hello World!

Time Limit: 2000/1000 MS (Java/Others) Memory Limit: 32768/32768 K (Java/Others)

Total Submission(s): 702 Accepted Submission(s): 278

## Problem Description

Your task is to print ... er ... "Hello World" ... in a fantastic way -- using a beautiful font.

I've sent you a nice font for you to use, but I'm too busy to tell you how. Can you help yourself?

## Input

The first line contains a single integer  $T$  ( $T \leq 20$ ), the number of test cases.

Each case begins with an integer  $C$  ( $1 \leq C \leq 80$ ) in a single line, then each of the following  $C$  lines contains five two-digit numbers in hex (letters will be in uppercase). Don't ask me what they mean, I'm too busy...

## Output

For each test case, print the case number in the first line, then followed by a blank line.

After that, print all  $T$  characters. Use a single blank column of spaces between two consecutive characters. Each line should have exactly  $6C-1$  character (again, don't ask me why).

Don't forget to print another blank line after the output of each test case.

## Sample Input

```
2
11
7F 08 08 08 7F
38 54 54 54 18
00 41 7F 40 00
00 41 7F 40 00
38 44 44 44 38
00 00 00 00 00
3F 40 38 40 3F
38 44 44 44 38
7C 08 04 04 08
00 41 7F 40 00
38 44 44 48 7F
5
14 08 3E 08 14
04 02 01 02 04
40 40 40 40 40
04 02 01 02 04
14 08 3E 08 14
```

## Sample Output

Case 1:

```

#  #      ##  ##          #  #          ##  #
#  #      #   #          #  #          #   #
#  #  ###  #   #   ###  #  #  ###  #  ##  #
##### #   #   #   #   #   #   #   #   #   #
#  #  ##### #   #   #   #   #   #   #   #
#  #  #      #   #   #   #   #   #   #   #
#  #  #      #   #   #   #   #   #   #   #
#  #  ###  ###  ###  ###          #  #  ###  ###

```

Case 2:

```

      #           #
    #   #   #   #   #   #   #
#  #  #  #  #  #   #   #   #  #  #  #  #
    ###           ###
#  #  #           #   #   #
      #           #
          #####

```

## Hello Kiki

**Time Limit: 2000/1000 MS (Java/Others) Memory Limit: 32768/32768 K (Java/Others)**

**Total Submission(s): 3804 Accepted Submission(s): 1444**

### Problem Description

One day I was shopping in the supermarket. There was a cashier counting coins seriously when a little kid running and singing "门前大桥下游过一群鸭，快来快来 数一数，二四六七八". And then the cashier put the counted coins back morosely and count again...

Hello Kiki is such a lovely girl that she loves doing counting in a different way. For example, when she is counting X coins, she count them N times. Each time she divide the coins into several same sized groups and write down the group size  $M_i$  and the number of the remaining coins  $A_i$  on her note.

One day Kiki's father found her note and he wanted to know how much coins Kiki was counting.

## Input

The first line is T indicating the number of test cases.

Each case contains N on the first line,  $M_i (1 \leq i \leq N)$  on the second line, and corresponding  $A_i (1 \leq i \leq N)$  on the third line.

All numbers in the input and output are integers.

$1 \leq T \leq 100$ ,  $1 \leq N \leq 6$ ,  $1 \leq M_i \leq 50$ ,  $0 \leq A_i < M_i$

## Output

For each case output the least positive integer X which Kiki was counting in the sample output format. If there is no solution then output -1.

## Sample Input

```
2
2
14 57
5 56
5
19 54 40 24 80
11 2 36 20 76
```

## Sample Output

```
Case 1: 341
Case 2: 5996
```

# Game

**Time Limit: 2000/1000 MS (Java/Others) Memory Limit: 32768/32768 K (Java/Others)**

**Total Submission(s): 999 Accepted Submission(s): 422**

## Problem Description

Mr.Frost is a child who is too simple, sometimes naive, always plays some simple but interesting games with his friends. Today, he invents a new game again:

At the beginning of the game they pick N ( $1 \leq N \leq 100$ ) piles of stones, Mr.Frost and his friend move the stones in turn. At each step of the game, the player chooses a pile, removes at least one stone from the pile, the first player can't make a move, and loses. So smart is the friends of



Mr.Frost that Mr.Frost always loses. Having been a loser for too many times, he wants to play a trick. His plan is to remove some piles, and then he can find a way to make sure that he would be the winner after his friends remove stones first.

Now, he wants to know how many ways to remove piles which are able to achieve his purpose. If it's impossible to find any way, please print "-1".

## Input

The first line contains a single integer  $t$  ( $1 \leq t \leq 20$ ), that indicates the number of test cases. Then follow the  $t$  cases. Each test case begins with a line contains an integer  $N$  ( $1 \leq N \leq 100$ ), representing the number of the piles. The next  $n$  lines, each of which has a positive integer  $A_i$  ( $1 \leq A_i \leq 2^{31} - 1$ ) represent the number of stones in this pile.

## Output

For each case, output a line contains the number of the way mod 1000007, If it's impossible to find any way, please print "-1".

## Sample Input

```
2
2
2
1
1
3
1
2
3
```

## Sample Output

```
2
2
```

# 汉诺塔问题

