Problem 5 – MICS L

Professor Plum likes the idea of MICS 2017 being the 50th anniversary, or 'L' in Roman numerals. He wants you to write a program to generate ASCII art printing "MICS L" for a sign to tape on the back of the MICS's trip van. Since he does not know the dimensions of the sign, so he wants your program to take as input positive integer scaling factors.

Scaling Factor	Letter Dimension of MICS (# chars × # chars)	Line Width of All Letters (# chars)	Blank Lines Between Letters MICS	Letter Dimension of L (# chars × # chars)	Blanks Between MICS and L
1	5 × 5	1	1	23 × 20	5
2	10 × 10	2	2	46 × 40	10
3	15 × 15	3	3	69 × 60	15
10	50 × 50	10	10	230 × 200	50

A scaling factor of 1 would produce:

```
Case 1:
M   M      L
MM MM      L
M M M      L
M   M      L
M   M      L
           L
IIIII      L
   I       L
   I       L
   I       L
IIIII      L
           L
CCCCC      L
C          L
C          L
C          L
CCCCC      L
           L
SSSSS      L
S          L
SSSSS      L
    S      L
SSSSS      LLLLLLLLLLLLLLLLLLLL
```

A scaling factor of 2 would produce:

```
Case 2:
MM      MM         LL
MMM    MMM         LL
MMMM  MMMM         LL
MM MMMM MM         LL
MM  MM  MM         LL
MM      MM         LL
MM      MM         LL
MM      MM         LL
MM      MM         LL
MM      MM         LL

                   LL
                   LL
IIIIIIIIII         LL
IIIIIIIIII         LL
     II            LL
     II            LL
     II            LL
     II            LL
     II            LL
     II            LL
IIIIIIIIII         LL
IIIIIIIIII         LL
                   LL
                   LL
CCCCCCCCCC         LL
CCCCCCCCCC         LL
CC                 LL
CC                 LL
CC                 LL
CC                 LL
CC                 LL
CC                 LL
CCCCCCCCCC         LL
CCCCCCCCCC         LL
                   LL
                   LL
SSSSSSSSSS         LL
SSSSSSSSSS         LL
SS                 LL
SS                 LL
SSSSSSSSSS         LL
SSSSSSSSSS         LL
        SS         LL
        SS         LL
SSSSSSSSSS         LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
SSSSSSSSSS         LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
```

Input

The first line contains the number of scaling factors. Each of the following lines contains a single positive integer scaling factor. The below sample input has 3 scaling factors.

```
3
1
2
3
```

Output

The output should contain the ASCII art for each sign corresponding to the scaling factor specified by the input.

NOTE: All lines for a sign should be the same length by padding shorter lines with blanks. No blank lines are between cases. Output for above input is spread cross the three "boxes" (see next page too).

A scaling factor of 3 would produce:

```
Case 3:
MMM         MMM             LLL
MMMM        MMMM            LLL
MMMMM      MMMMM            LLL
MMMMMM    MMMMMM            LLL
MMM MMM MMM MMM            LLL
MMM  MMMMM  MMM            LLL
MMM   MMM   MMM            LLL
MMM    M    MMM            LLL
MMM         MMM            LLL
MMM         MMM            LLL
MMM         MMM            LLL
MMM         MMM            LLL
MMM         MMM            LLL
MMM         MMM            LLL
MMM         MMM            LLL
                           LLL
                           LLL
                           LLL
IIIIIIIIIIIIIIIII          LLL
IIIIIIIIIIIIIIIII          LLL
IIIIIIIIIIIIIIIII          LLL
        III                LLL
        III                LLL
        III                LLL
        III                LLL
        III                LLL
        III                LLL
        III                LLL
        III                LLL
        III                LLL
IIIIIIIIIIIIIIIII          LLL
IIIIIIIIIIIIIIIII          LLL
IIIIIIIIIIIIIIIII          LLL
                           LLL
                           LLL
                           LLL
CCCCCCCCCCCCCCCCC          LLL
CCCCCCCCCCCCCCCCC          LLL
CCCCCCCCCCCCCCCCC          LLL
CCC                        LLL
CCC                        LLL
CCC                        LLL
CCC                        LLL
CCC                        LLL
CCC                        LLL
CCC                        LLL
CCC                        LLL
CCC                        LLL
CCCCCCCCCCCCCCCCC          LLL
CCCCCCCCCCCCCCCCC          LLL
CCCCCCCCCCCCCCCCC          LLL
                           LLL
                           LLL
                           LLL
SSSSSSSSSSSSSSSSS          LLL
SSSSSSSSSSSSSSSSS          LLL
SSSSSSSSSSSSSSSSS          LLL
SSS                        LLL
SSS                        LLL
SSS                        LLL
SSSSSSSSSSSSSSSSS          LLL
SSSSSSSSSSSSSSSSS          LLL
SSSSSSSSSSSSSSSSS          LLL
            SSS            LLL
            SSS            LLL
            SSS            LLL
SSSSSSSSSSSSSSSSS          LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
SSSSSSSSSSSSSSSSS          LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
SSSSSSSSSSSSSSSSS          LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
```