problem
04

You're Doing My Ears A Favor

2
points

Joe Gardner teaches a music class at a school and needs your help. He is in need of some noise canceling headphones to prevent headaches during some of his classes. Joe doesn't want to buy the headphones because he wants to custom make them into some of his clothes so that his students won't know. Could you help Joe by inverting (flip) the sound wave that is coming into the headset?

Input

You will receive the number of lines you will receive followed by #'s in a wave pattern. Note, there are no flat parts to the waves. Max Size of the wave is 80x80.

```
7
   #
  # #         #
 #   #       # #   #
#     #     #   # #
       #   #     #
        # #
         #
```

Output

The output should be the inverted (flipped) wave.

```
         #
        # #
       #   #     #
#     #     #   # #
 #   #       # #   #
  # #         #
   #
```

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continued

Discussion

Noise Canceling works by using microphones to pick up low-frequency noise and neutralize it before it reaches the ear. The headset generates a sound that's phase-inverted (x-axis flip) by 180 degrees to the unwanted noise, resulting in the two sounds cancelling each other out.

The Flip always occurs on the X axis.

Additional Examples

Input

```
8
#               #
 #   #          # #          #
  # # #        #   #     #   # #
   #   #      #     #   # # #   #
       #     #       # #   #     #
        #   #         #           #
         # #                      #
          #
```

Output

```
          #
         # #                      #
        #   #         #           #
       #     #       # #   #     #
   #   #       #     #   # # #   #
  # # #         #   #     #   # #
 #   #           # #          #
#               #
```