

Mario

World 1-1

Toward the beginning of World 1-1 in Nintendo's Super Mario Brothers, Mario must hop over adjacent pyramids of blocks, per the below.



Let's recreate those pyramids in C, albeit in text, using hashes (#) for bricks, a la the below. Each hash is a bit taller than it is wide, so the pyramids themselves are also be taller than they are wide.

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

The program we'll write will be called `mario`. And let's allow the user to decide just how tall the pyramids should be by first prompting them for a positive integer between, say, 1 and 8, inclusive.

Here's how the program might work if the user inputs `8` when prompted:

```
$ ./mario  
Height: 8  
# #  
## ##  
### ###  
#### ####  
##### #####  
##### #####  
##### #####  
##### #####  
##### #####
```

Here's how the program might work if the user inputs `4` when prompted:

```
$ ./mario  
Height: 4  
# #  
## ##  
### ###  
#### ####
```

Here's how the program might work if the user inputs `2` when prompted:

```
$ ./mario
Height: 2
# #
## ##
```

And here's how the program might work if the user inputs `1` when prompted:

```
$ ./mario
Height: 1
# #
```

If the user doesn't, in fact, input a positive integer between 1 and 8, inclusive, when prompted, the program should re-prompt the user until they cooperate:

```
$ ./mario
Height: -1
Height: 0
Height: 42
Height: 50
Height: 4
# #
## ##
### ###
#### ####
```

Notice that width of the “gap” between adjacent pyramids is equal to the width of two hashes, irrespective of the pyramids' heights.

Create a new directory (i.e., folder) called `mario` inside of your `pset1` directory, by executing

```
~/ $ mkdir ~/pset1/mario
```

Create a new file called `mario.c` inside your `mario` directory. Modify `mario.c` in such a way that it implements this program as described!