

THISISCS50.

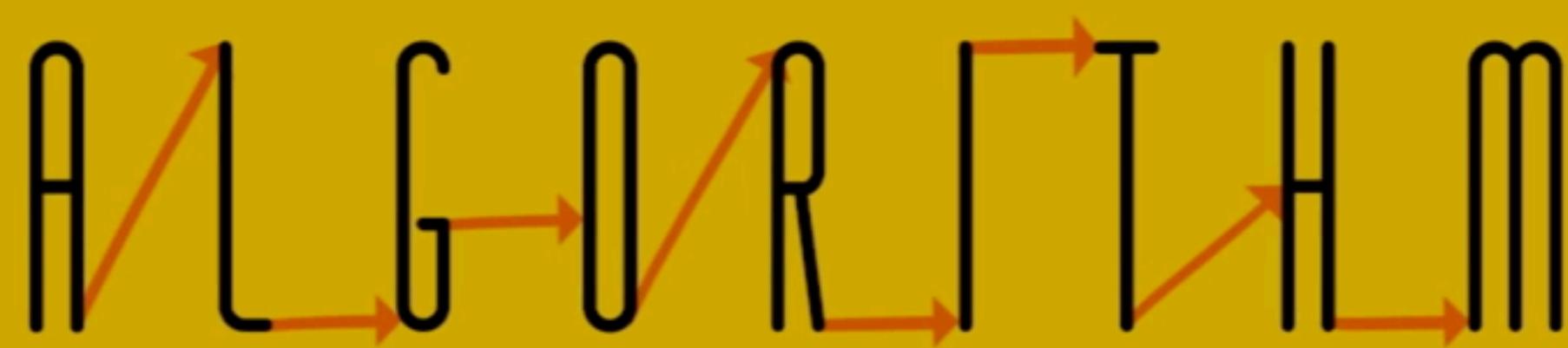




RE

Clip Lamp







Pseudocode

Pseudo code

(RESEMBLING)
(PROGRAMMING LANGUAGE)

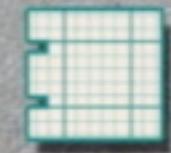
Pseudocode



let **N** = 0



for each person in room



Set **N** = **N** + 1

variable



let **N** = 0



for each person in room



Set **N** = **N** + 1



let **N** = 0

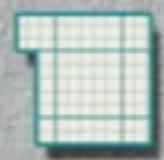


For each person in room

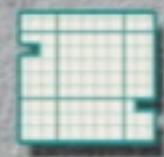


Set **N** = **N** + 1

loop



let **N** = 0



for each person in room

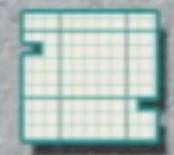


Set **N** = **N** + 1

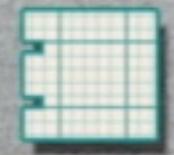
TEST COMPLETE



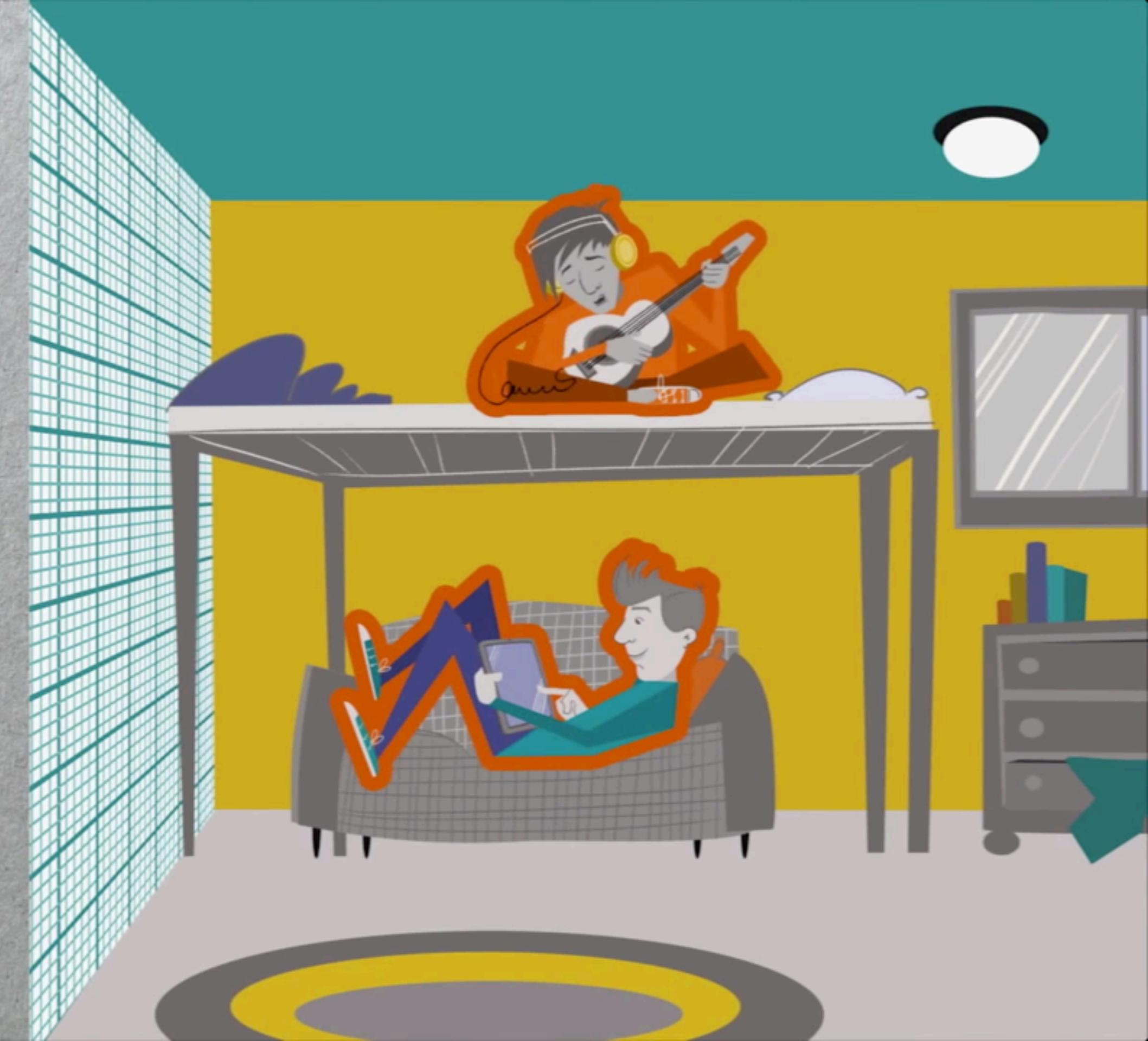
let **N** = 0



For each person in room



Set **N** = **N** + 1



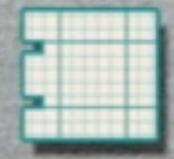
TEST COMPLETE



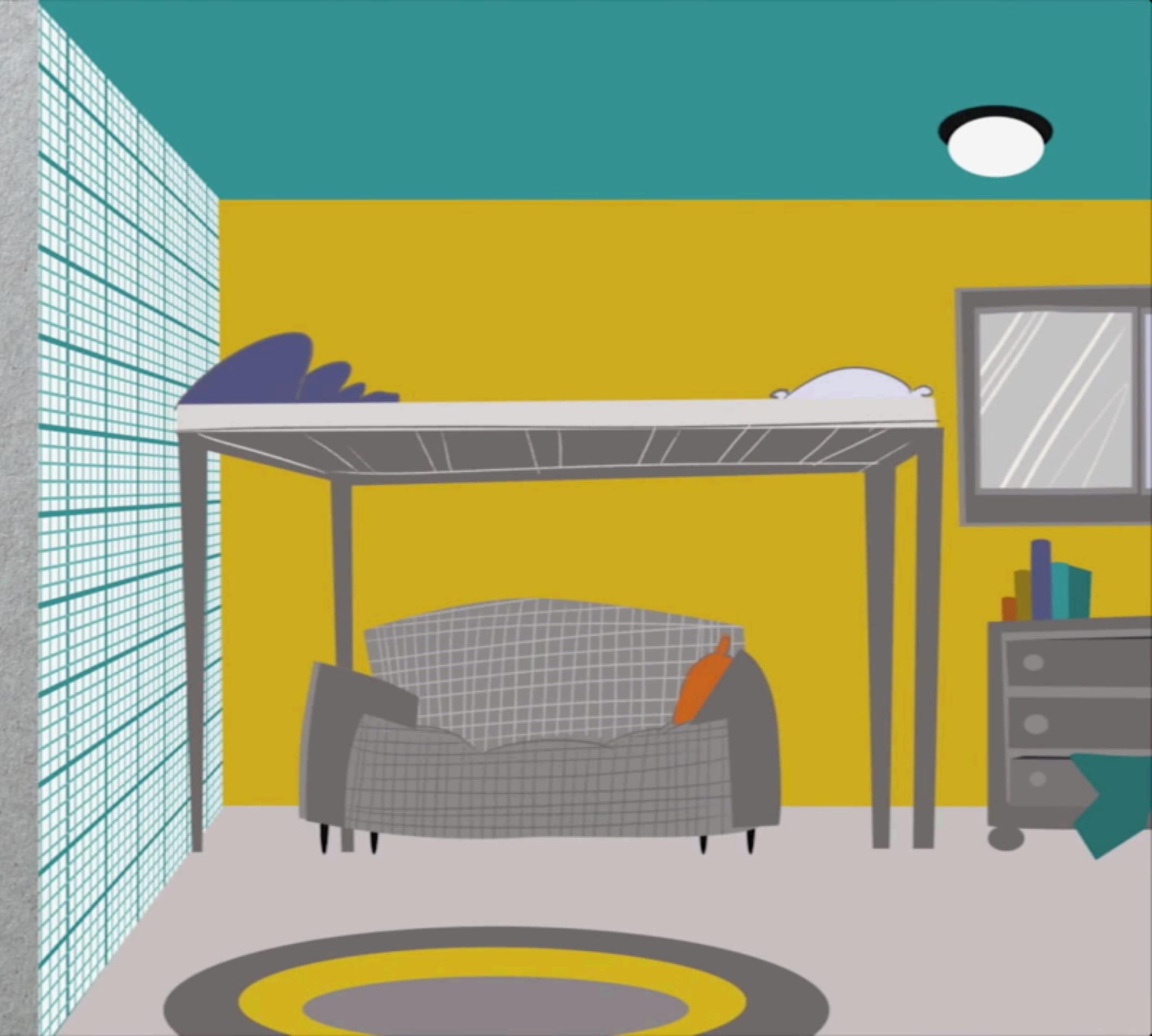
let **N** = 0



For each person in room



Set **N** = **N** + 1



TEST COMPLETE



let **N** = 0

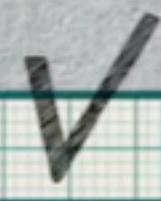
For each pair of people in room

Set **N** = **N** + 2

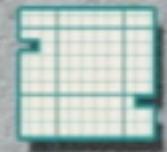
2



TEST COMPLETE



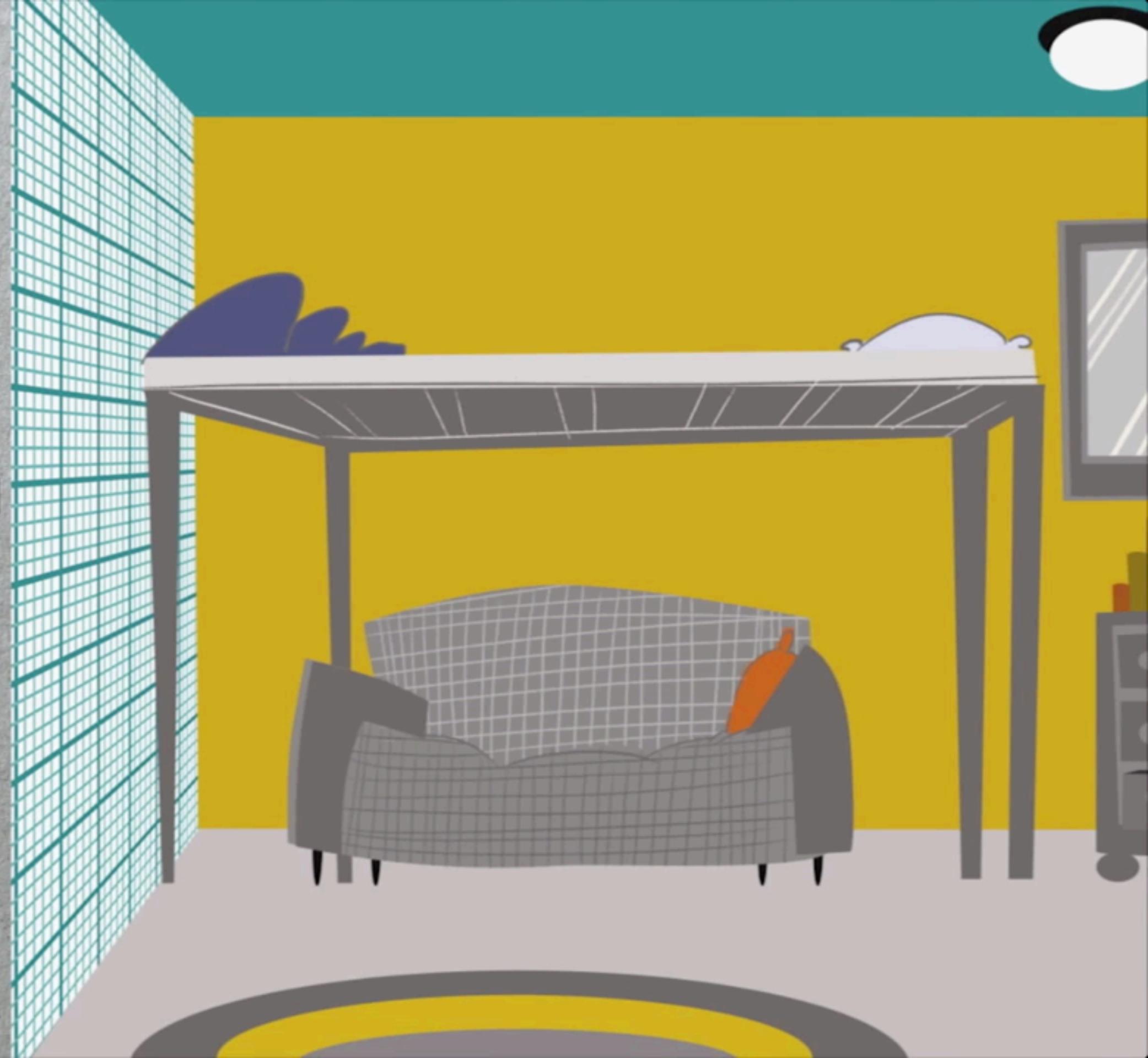
let **N** = 0

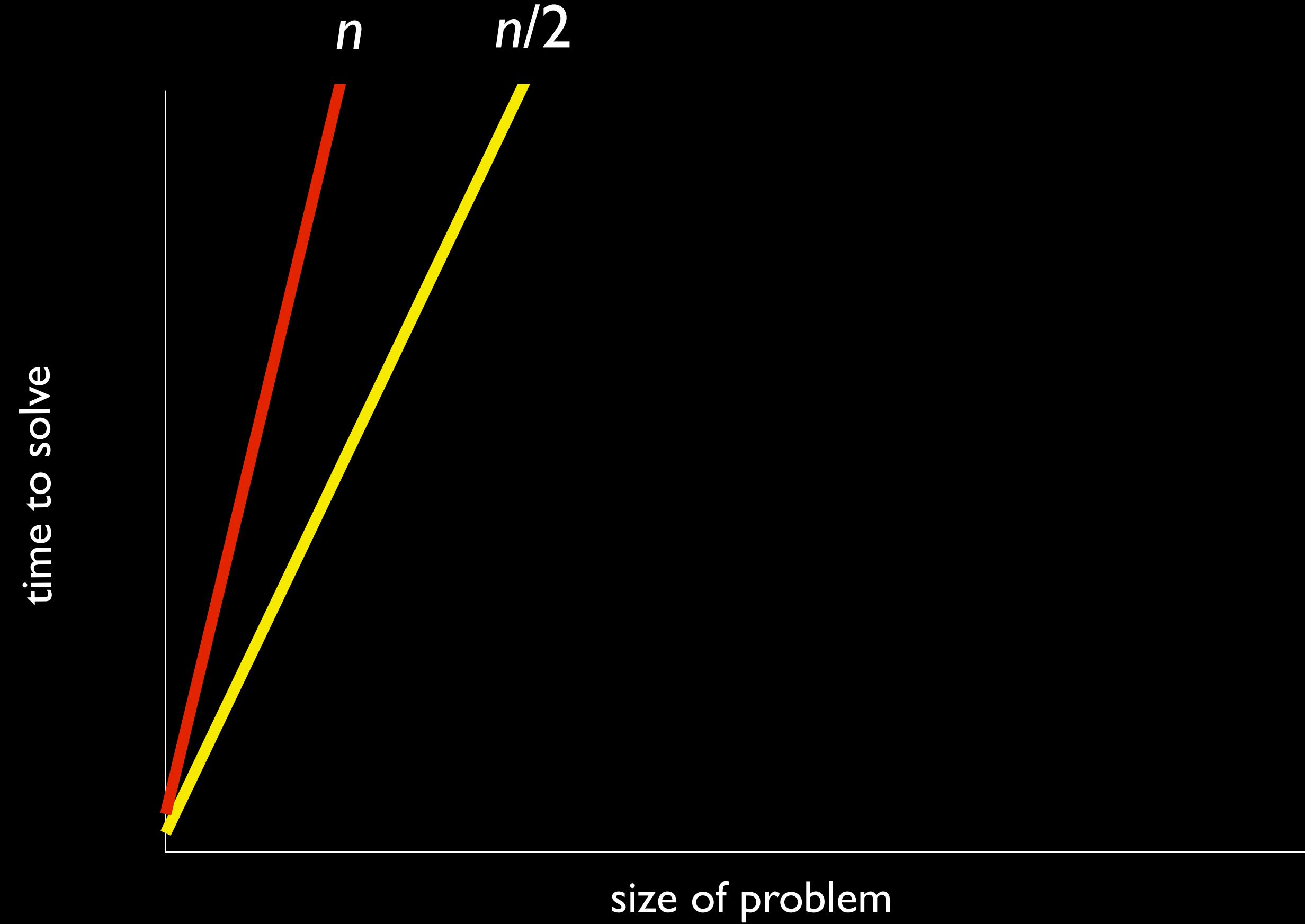


For each pair of people in room



Set **N = N + 2**





BUGGY!



let **N** = 0

For each pair of people in room

Set **N** = **N** + 2



condition

TEST COMPLETE



let **N** = 0

for each pair of people in room

Set **N** = **N** + 2

If 1 person remains then

Set **N** = **N** + 1

3



code

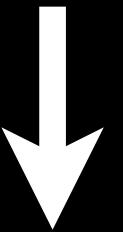
source code

```
#include <stdio.h>

int main(void)
{
    printf("hello, world\n");
}
```

compiler

source code

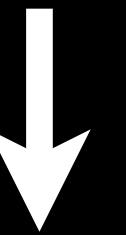


compiler

source code



compiler



object code

10000011	00000001	00010001	00000000	00111101	11111100	01110100	00111101
00000000	01000000	00000000	00000000	00000000	00000000	00000000	00000000
10010000	00000000	00000000	00000000	01010000	00000000	00000111	00110000
00001011	00000001	00001011	00000011	00001010	00000000	00000000	00000000
00000000	00100000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00100000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
01110000	00010000	00000000	00100000	00000001	00000000	00000000	00000000
00000000	00000000	00000000	00100000	00000001	00000000	00000000	00000000
00000000	00000000	00000000	01000000	00000001	00000000	00000000	00000000
00000000	00100000	00000000	01000000	00000001	00000000	00000000	00000000
11111111	11111111	11111111	11111111	11111111	11111111	11111111	11111111
10010000	10000000	00000000	01000000	00000001	00000000	00000000	00000000
00101110	01100100	01111001	01101110	01100001	01101101	01101001	01100011
10110000	00000100	00000000	00100000	00000001	00000000	00000000	00000000
10110000	00000100	00000000	00100000	00000001	00000000	00000000	00000000
10100000	00000001	00000000	00000000	00000000	00000000	00000000	00000000
10110000	00000100	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00100000	00000000	00000000

...

when  clicked

say [hello, world!]

show [olive] yes

scratch.mit.edu

statements



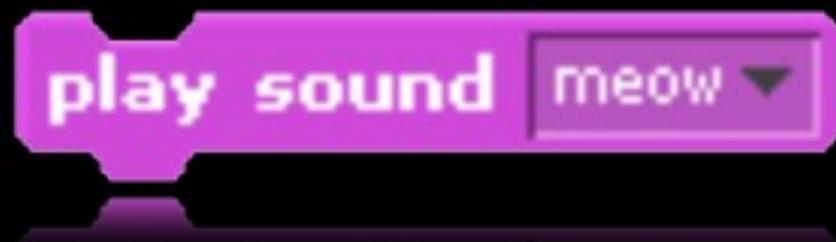
A Scratch script consisting of a single purple `say` hat block with the text "hello, world!" inside.

```
say [hello, world!] v1
```

statements



statements



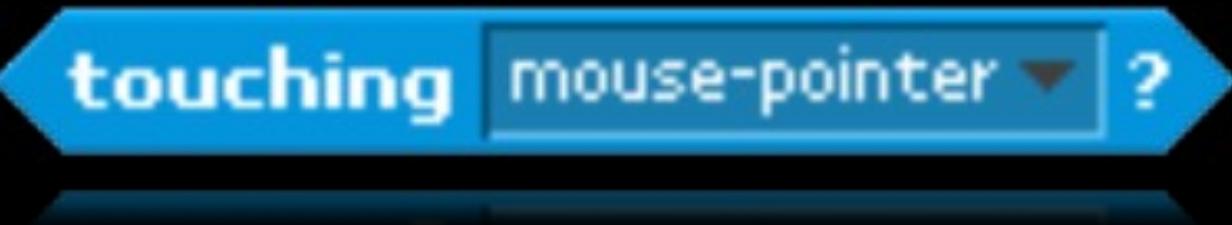
Boolean expressions

mouse down?

Boolean expressions



Boolean expressions



Boolean expressions

and

Boolean expressions

The image shows a user interface for searching courses. At the top, there are dropdown menus for 'Term' and 'Year', followed by a search bar labeled 'Search Courses' with a magnifying glass icon. Below these are two more dropdown menus: 'All Faculty' and 'All Fields of Study'. Further down are two more dropdown menus: 'Course Level' and 'General Education Requirements'. To the right of these dropdowns are several filter options: a checkbox for 'course ≥ 4.5' with a dropdown menu, a checkbox for 'faculty ≥ 4.5' with a dropdown menu, and a section titled 'doesn't conflict with' containing three checkboxes: 'Courses I'm Taking', 'Time Constraints', and another checkbox whose text is partially visible ('...'). At the bottom of the interface, there is a dark grey footer bar with some text that is mostly illegible due to the shadow effect.

Term Year Search Courses

All Faculty All Fields of Study

Course Level

General Education Requirements

doesn't conflict with

- Courses I'm Taking
- Time Constraints

conditions



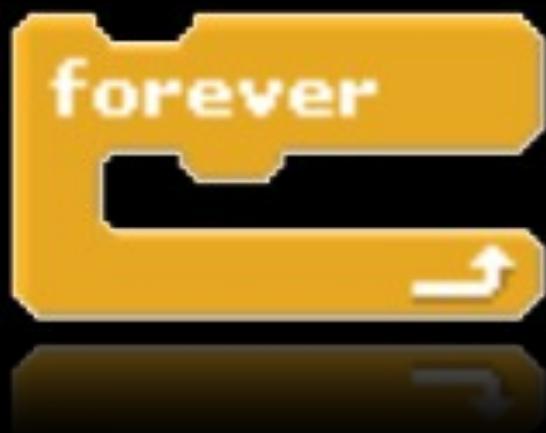
conditions



conditions



loops



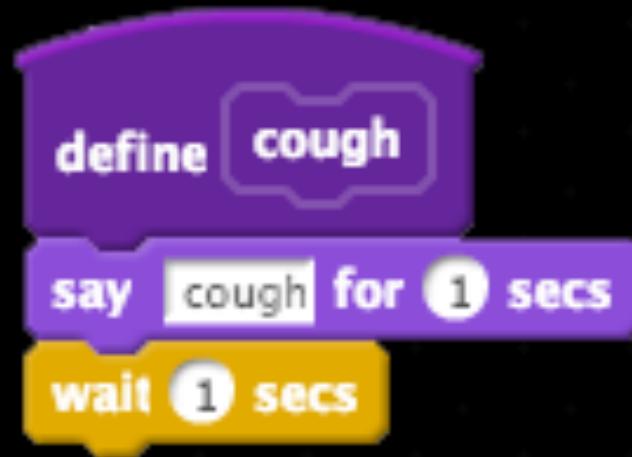
loops



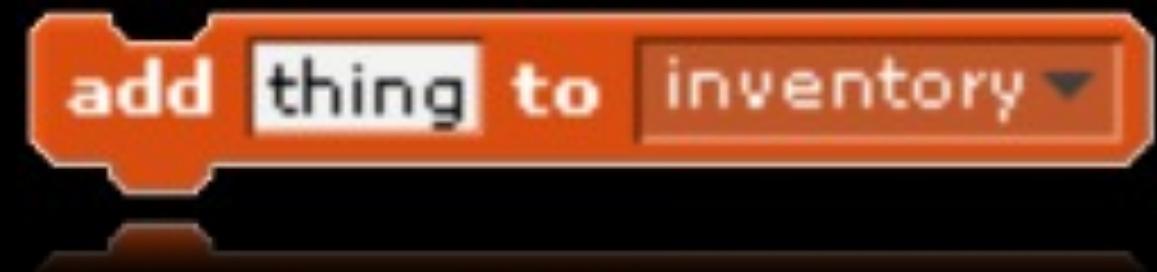
variables



functions



arrays





threads



events



problem set 0

to be continued...