THISISCS50.


RE
Clip Lamp


128s
64s
32s
16s
8s
4s
2s
1s

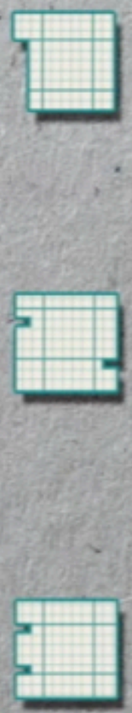

ALGORITHM

Pseudocode

Pseudo code

(RESEMBLING) (PROGRAMMING LANGUAGE)

Pseudocode



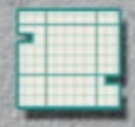
let **N = 0**

For each person in room

Set **N = N + 1**

variable

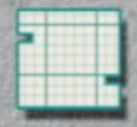
let **N = 0**



for each person in room

Set **N = N + 1**

let **N = 0**

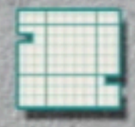


for each person in room

Set **N = N + 1**

loop

let **N = 0**



for each person in room

Set **N = N + 1**

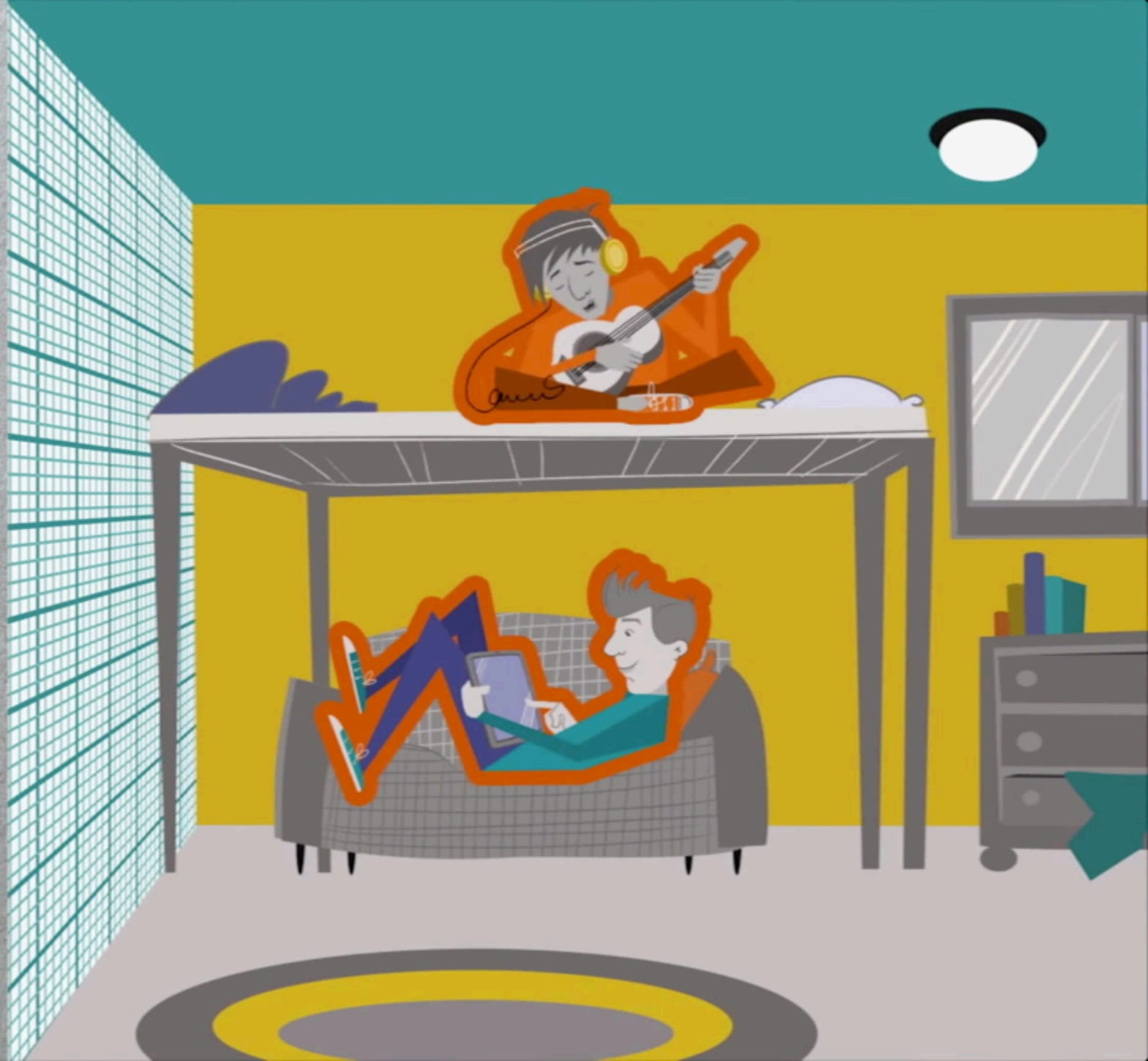
TEST COMPLETE

let **N = 0**

for each person in room

Set **N = N + 1**

2



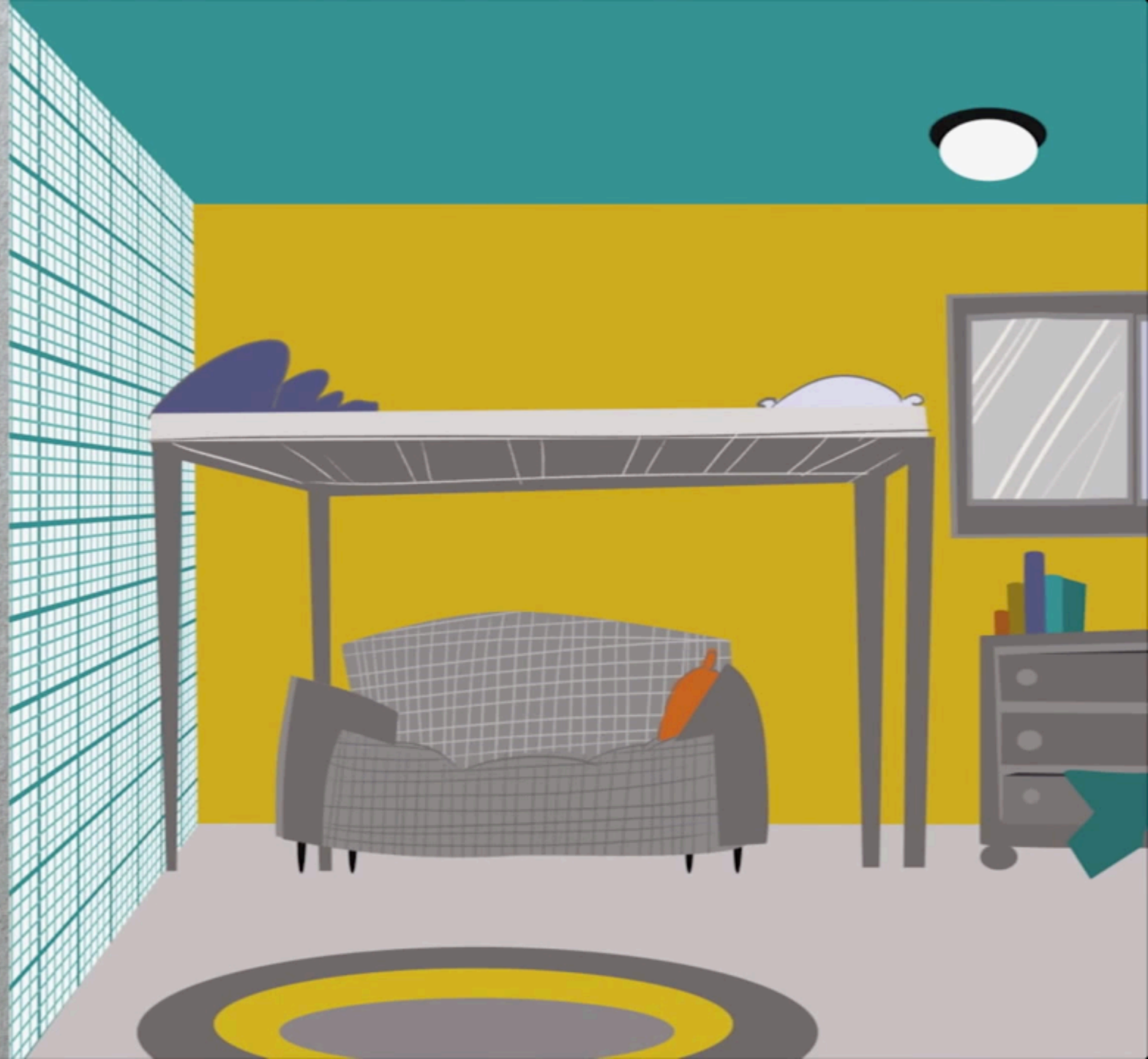
TEST COMPLETE

let **N = 0**

for each person in room

Set **N = N + 1**

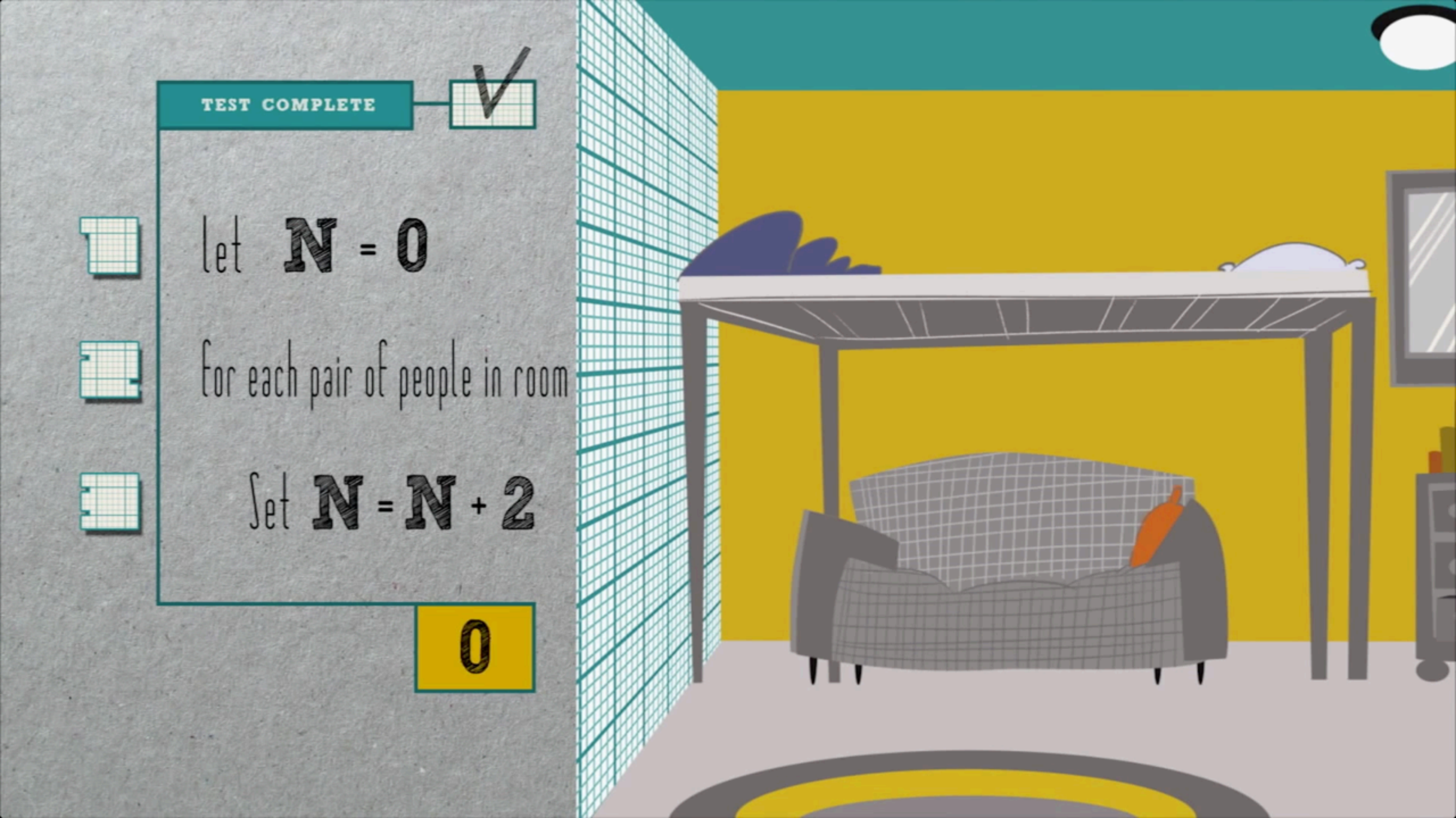
0

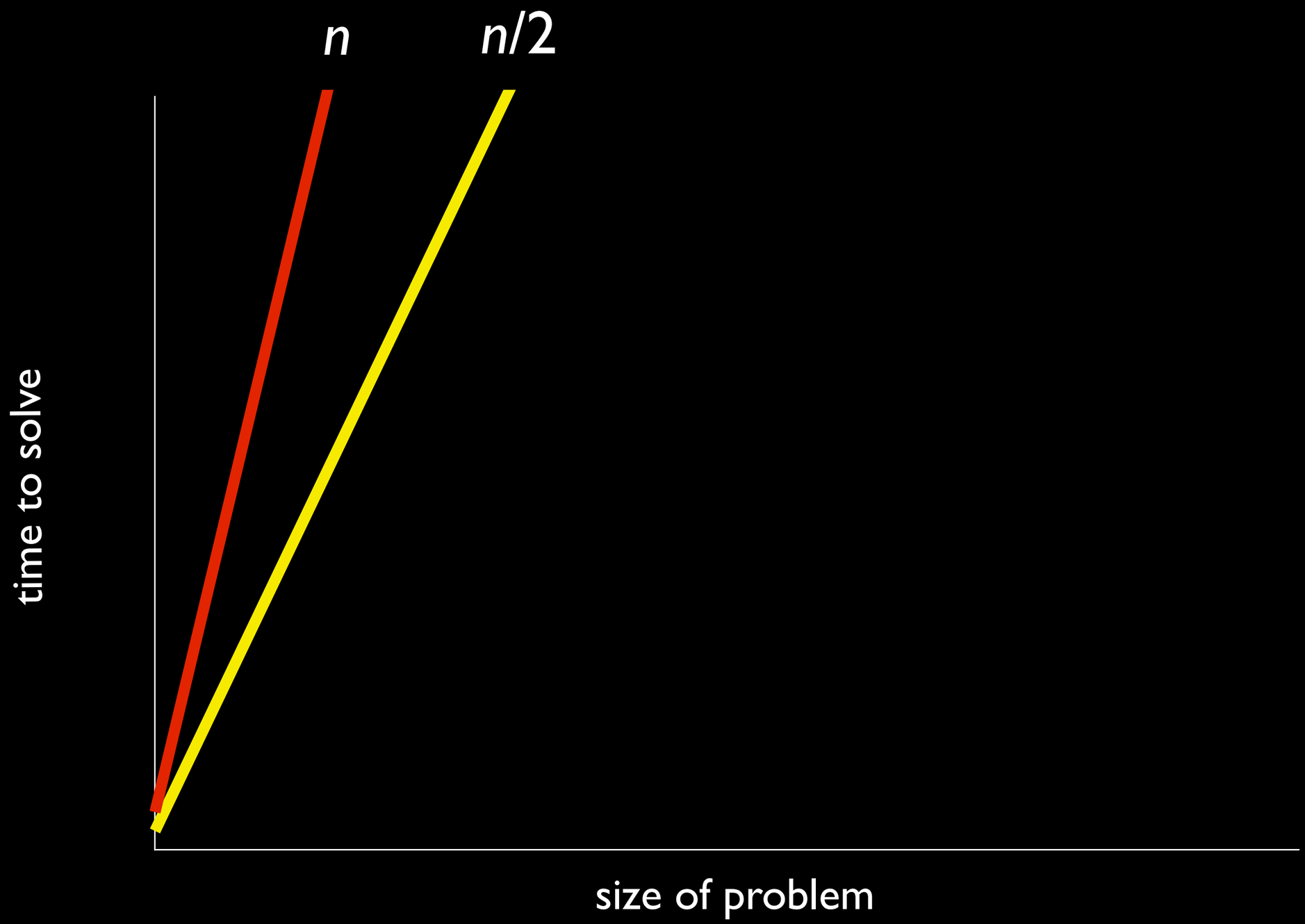


TEST COMPLETE

- [x] 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
0


n
n/2
time to solve
size of problem

BUGGY!

let N = 0

for each pair of people in room

Set N = N + 2

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

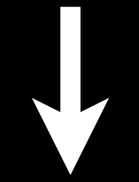
code

source code

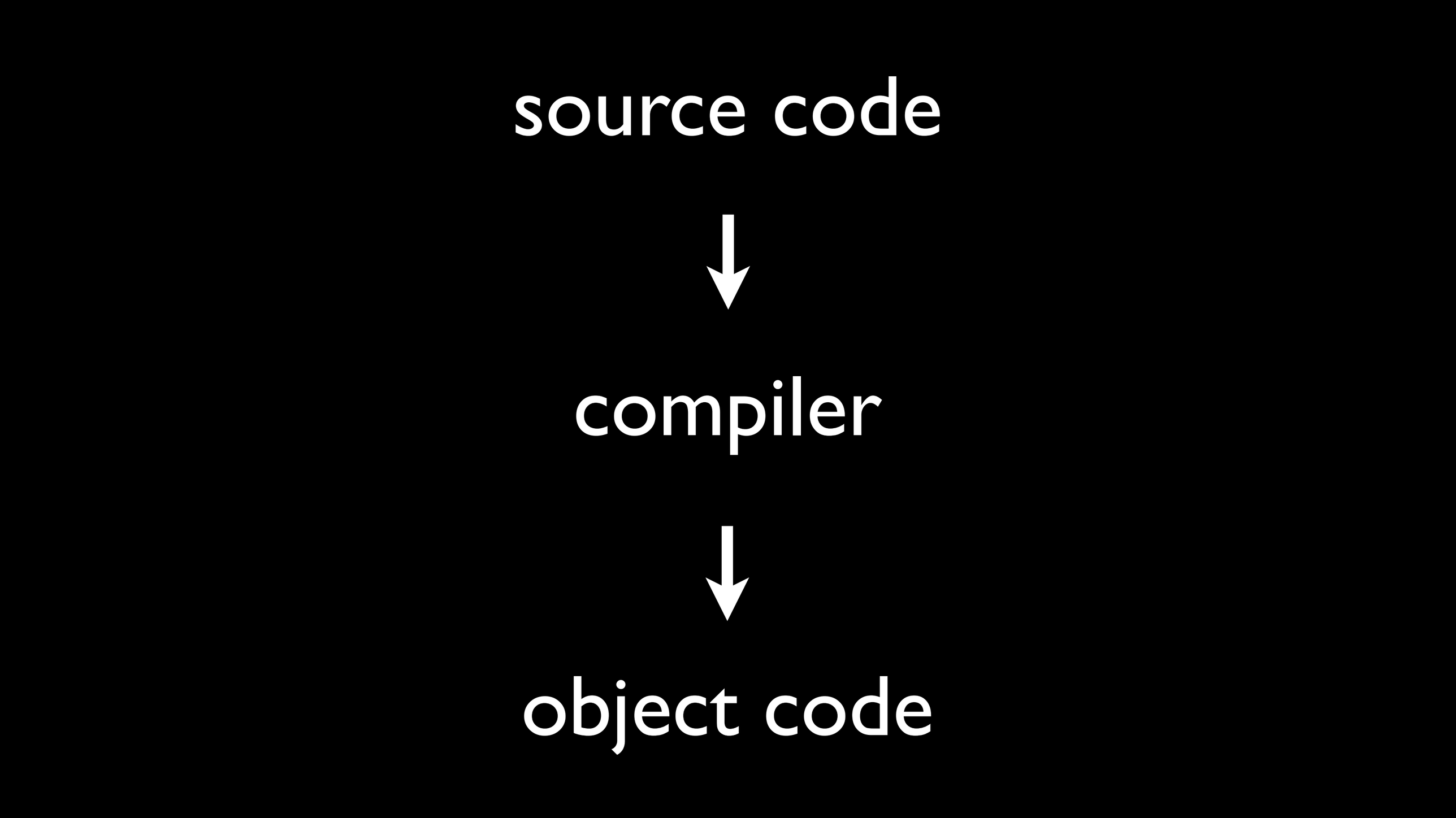
```c
#include <stdio.h>

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
...
```

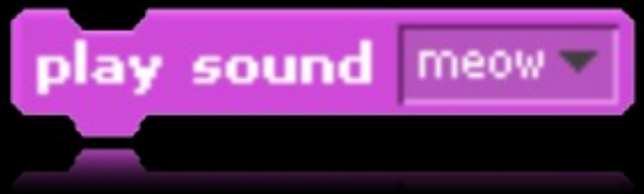

when clicked
say hello, world!

scratch.mit.edu

statements

statements

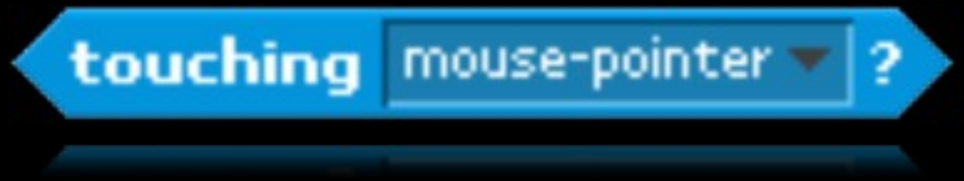
statements



Boolean expressions

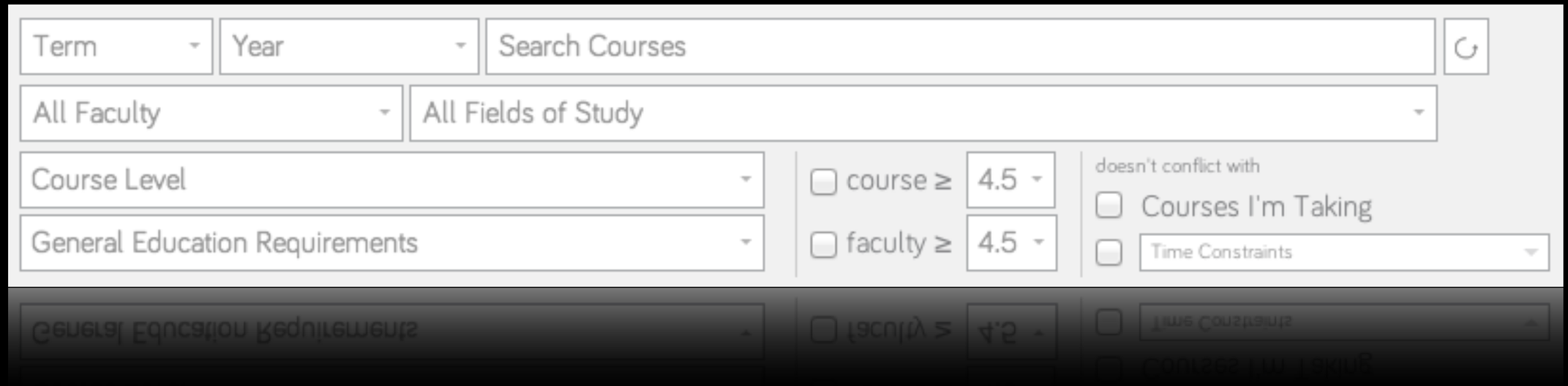
Boolean expressions

Boolean expressions



Boolean expressions

Boolean expressions



conditions

conditions

conditions

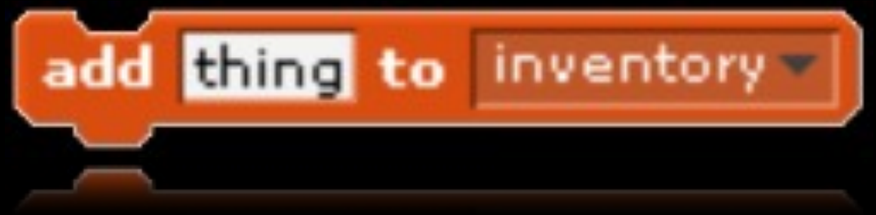
loops

loops

variables

functions

arrays



threads

events

problem set 0

to be continued...