

This is CS50

syllabus at cs50.yale.edu

Week 0

73%

of CS50 students
have never taken CS before

Less Comfortable
58%



Somewhere in Between
33%

More Comfortable
9%

what ultimately matters in this course is not so much where you end up relative to your classmates but where you, in **Week 11**, end up relative to yourself in **Week 0**

Scratch

C

Crypto

Game of Fifteen

Forensics

Mispellings

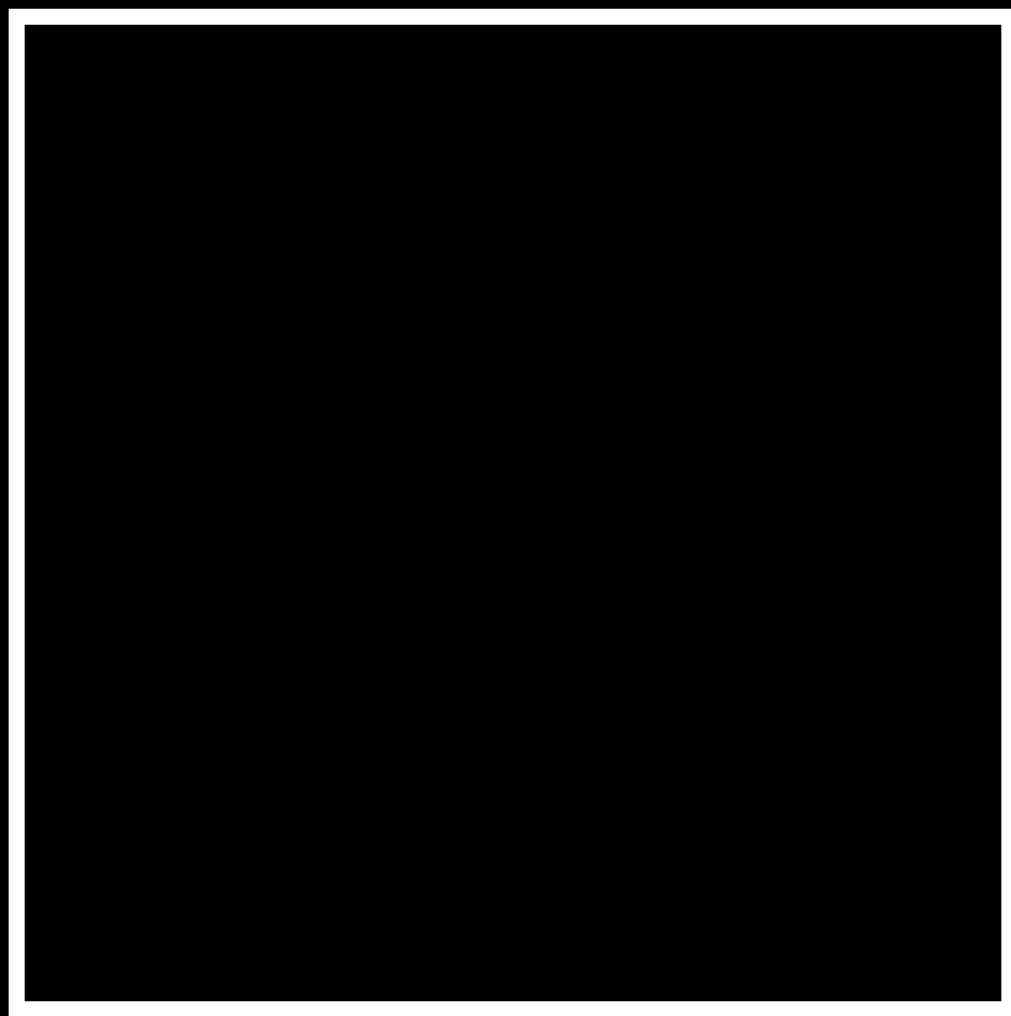
Web Server

C\$50 Finance

Mashup

problem solving

inputs →



→ outputs

binary

0, 1

decimal

0, 1, 2, 3, 4, 5, 6, 7, 8, 9

1 2 3

42

50

ASCII

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| A | B | C | D | E | F | G | H | I | ... |
| 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | ... |

H

72

73

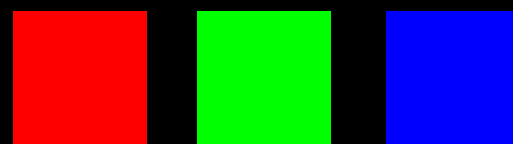
33

H I

72 73 33

H I !

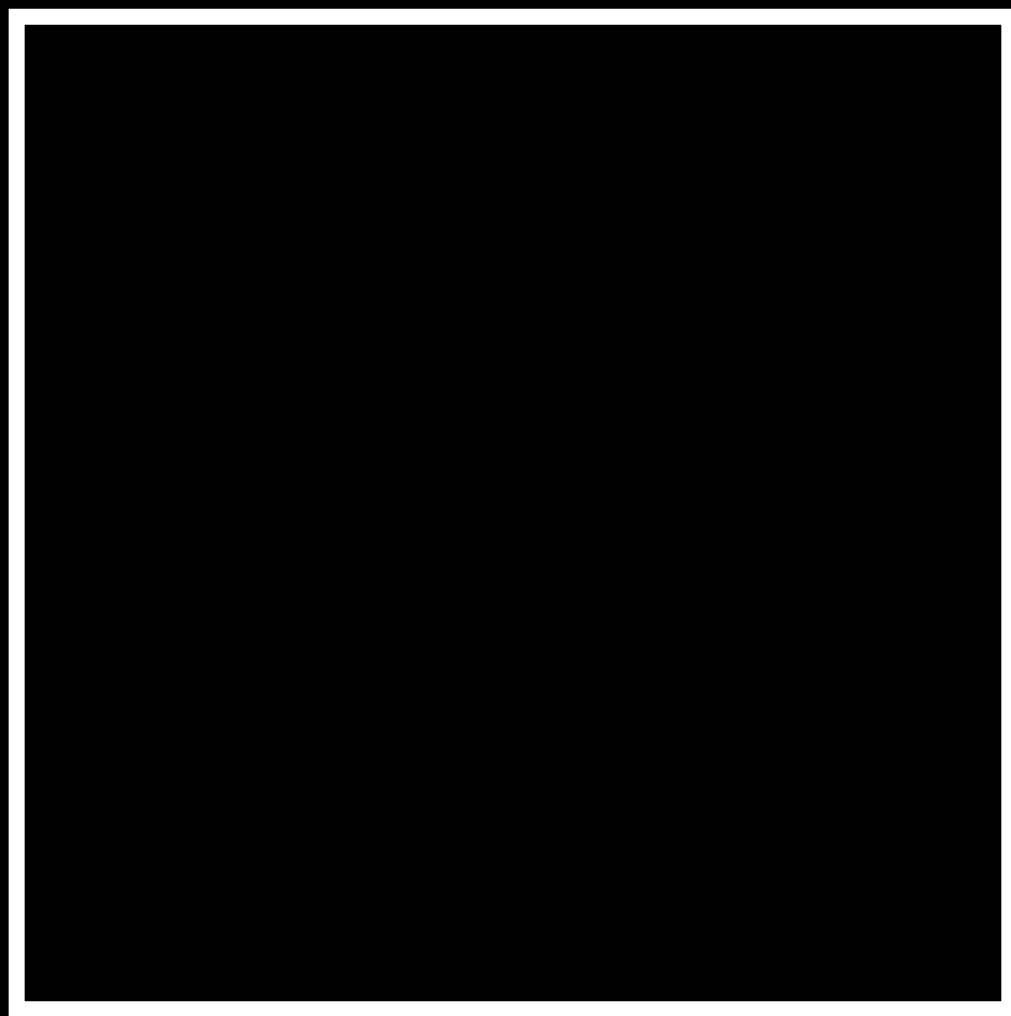
72 73 33



72 73 33



inputs →



→ outputs

algorithms

```
0  pick up phone book
1  open to middle of phone book
2  look at names
3  if Smith is among names
4      call Mike
5  else if Smith is earlier in book
6      open to middle of left half of book
7      go back to step 2
8  else if Smith is later in book
9      open to middle of right half of book
10     go back to step 2
11 else
12     quit
```

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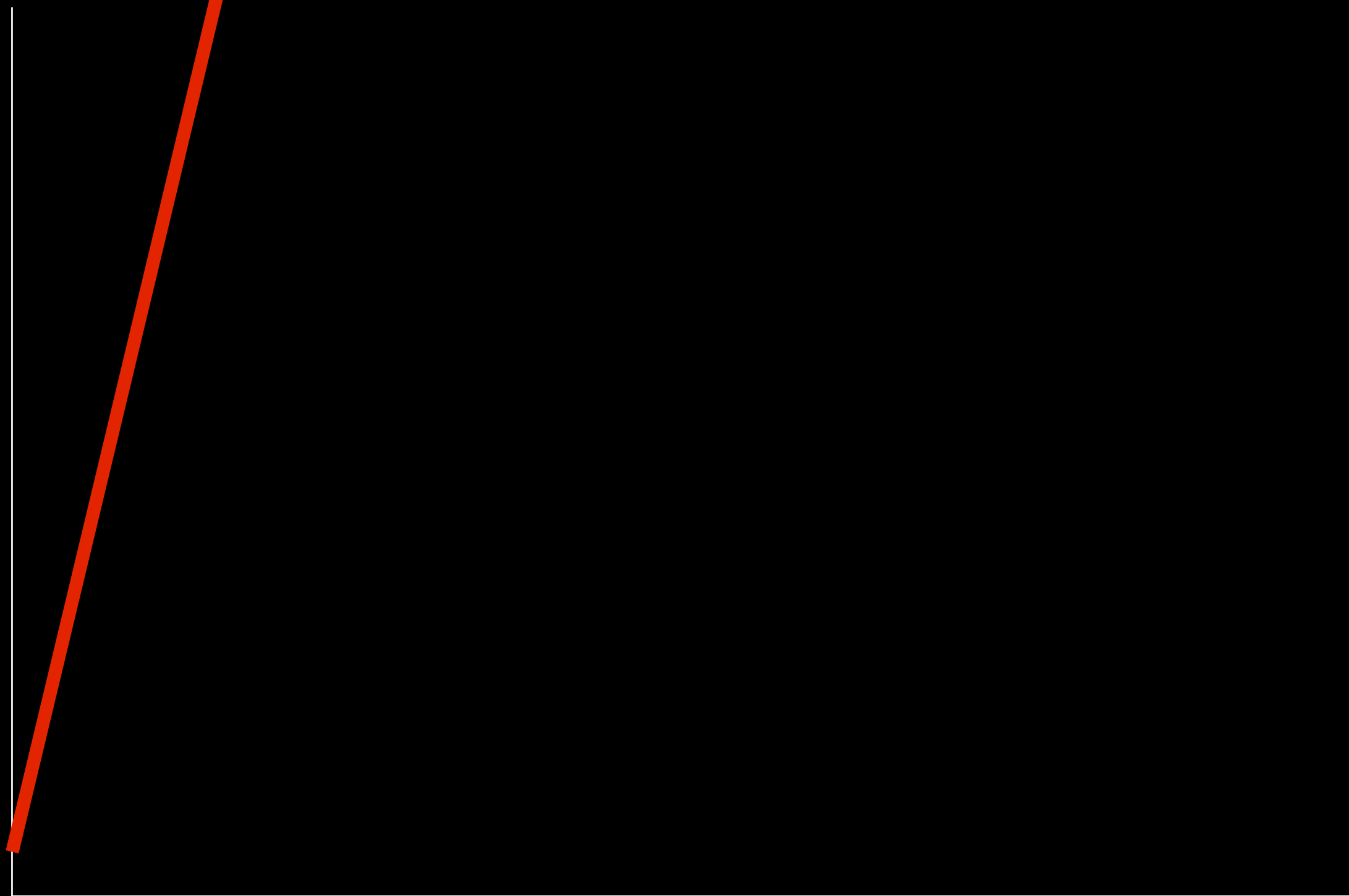


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```

time to solve

size of problem

time to solve



n

size of problem

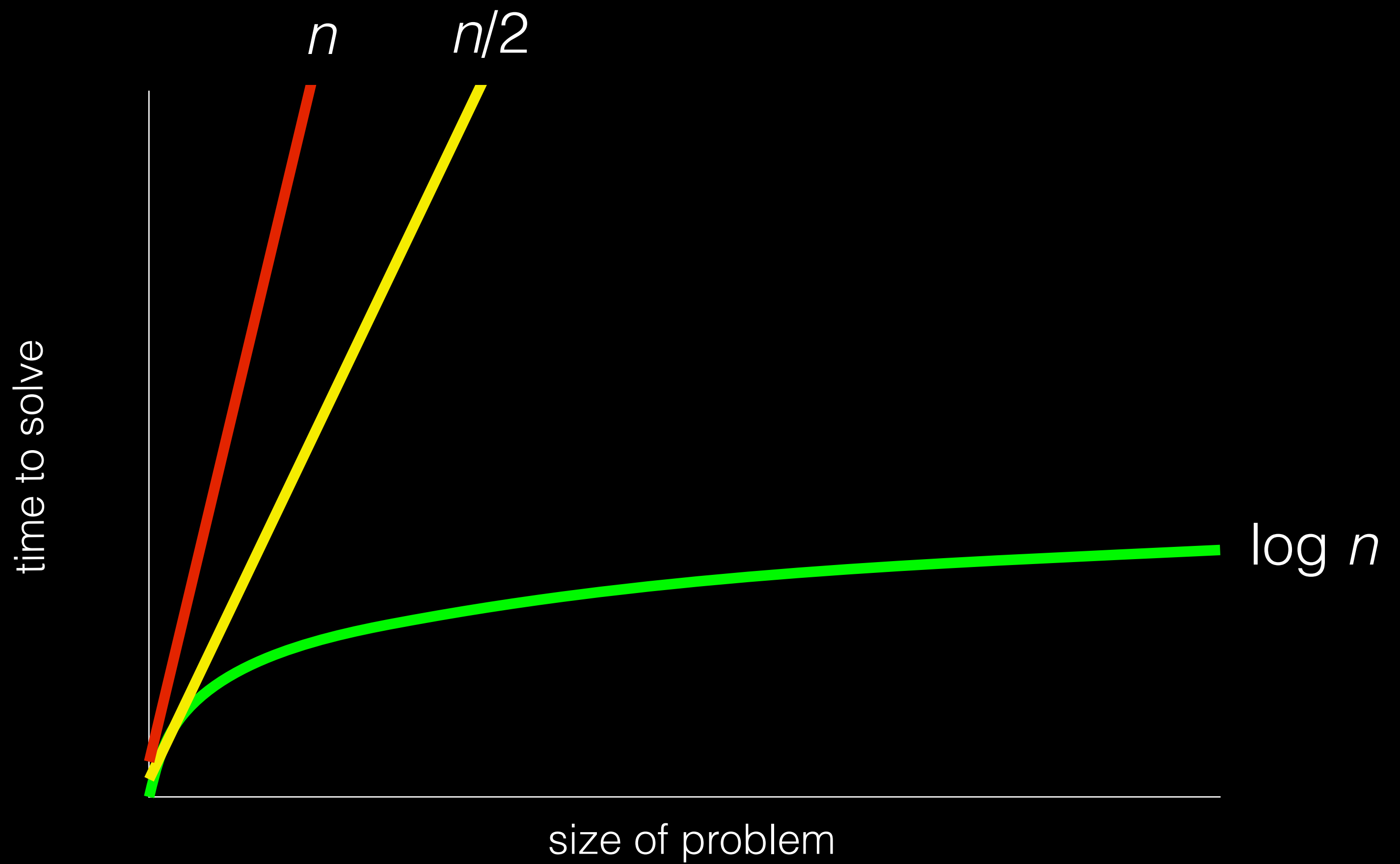
time to solve

n

$n/2$

size of problem





problem solving

This is CS50

cs50.ly/new

lectures

attend first

...

attend middle

...

attend last

lectures

Scratch

C

Arrays

Algorithms

Memory

Data Structures

...

Machine Learning

Python

HTTP

SQL

JavaScript

The End

walkthroughs

most Thursdays at 4pm

embedded in every problem set

problem sets

released on Fridays

due (10 days later) on Mondays at noon

problem sets

Scratch

C

C

C

C

C

Python

Python, SQL

JavaScript

take as first year?

take with other courses?

sections

less comfortable

more comfortable

somewhere in between

sections

Mondays

Tuesdays

office hours

Wednesdays

Thursdays

Sundays



Andi

YALE
UNIVERSITY

CS50

CS50 Puzzle Day

17 Hillhouse

Sat 9/3/16, 12pm – 3:30pm

cs50.yale.edu/register

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INDIAN CUISINE

CS50 Coding Contest











```
#include <stdio.h>
```

```
int main(void)
```

```
{
```

```
    printf("hello, world\n");
```

```
}
```

when  clicked

say hello, world

functions

loops

variables

Boolean expressions

conditions

arrays

threads

events

...

say

hello, world

forever

say

hello, world





set **i** to 0





if $x < y$ then

say x is less than y

else

if $x > y$ then

say x is greater than y

else

say x is equal to y

item 1 of argv

when  clicked

when  clicked

broadcast message ▼

when I receive message ▼

