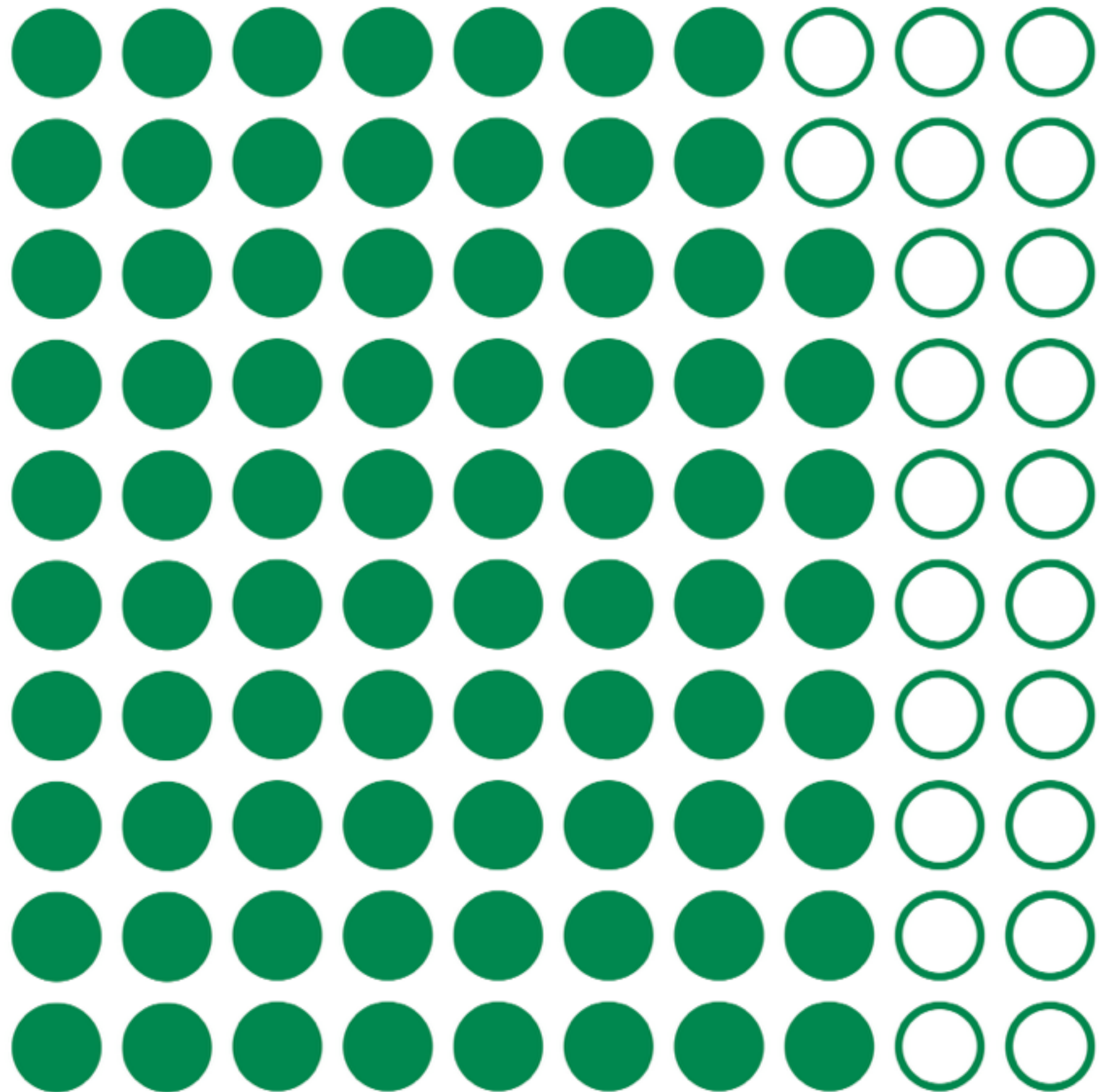


week 0



# This is CS50.

an introduction to the intellectual enterprises  
of computer science and the art of programming



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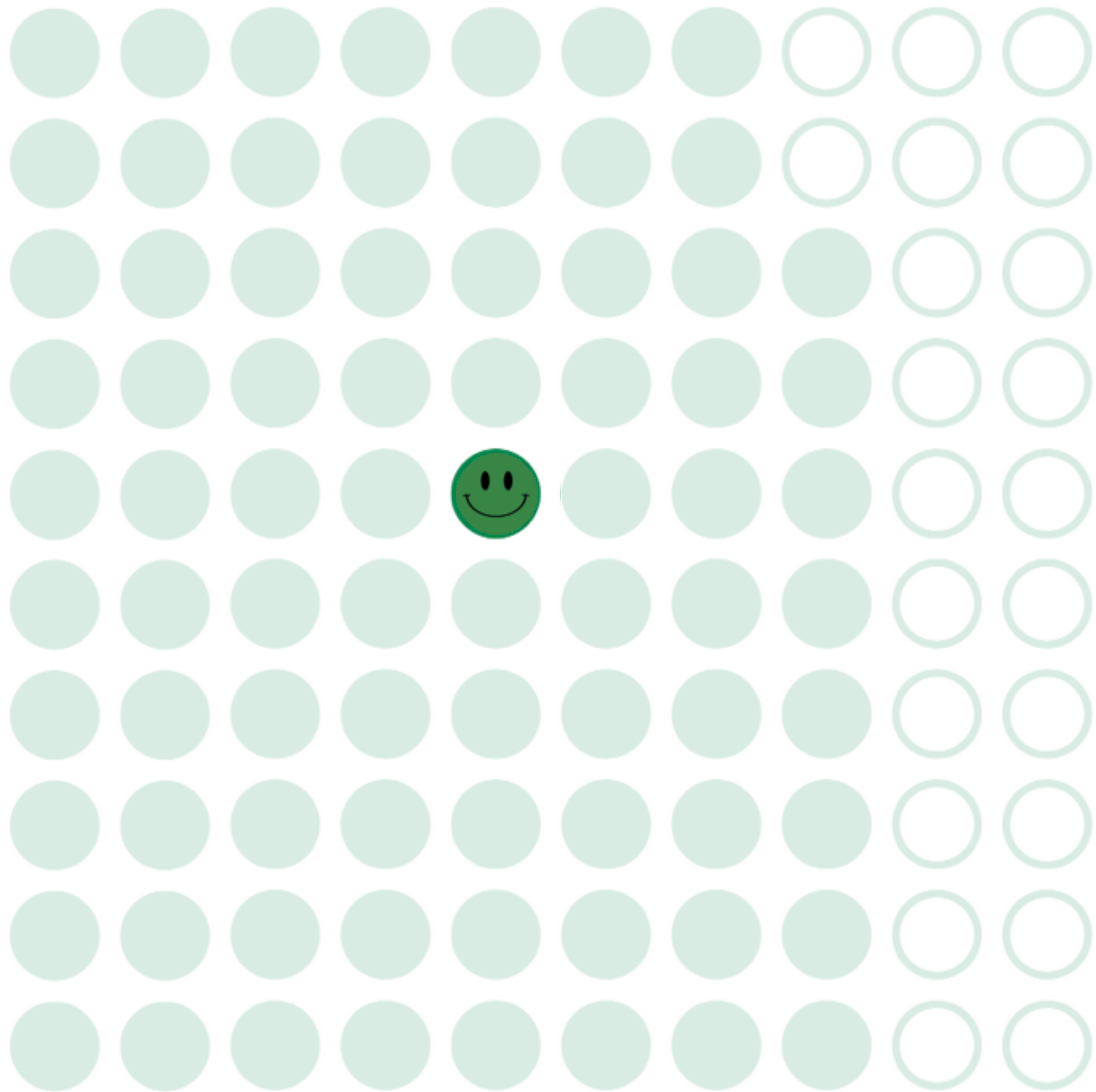
78%

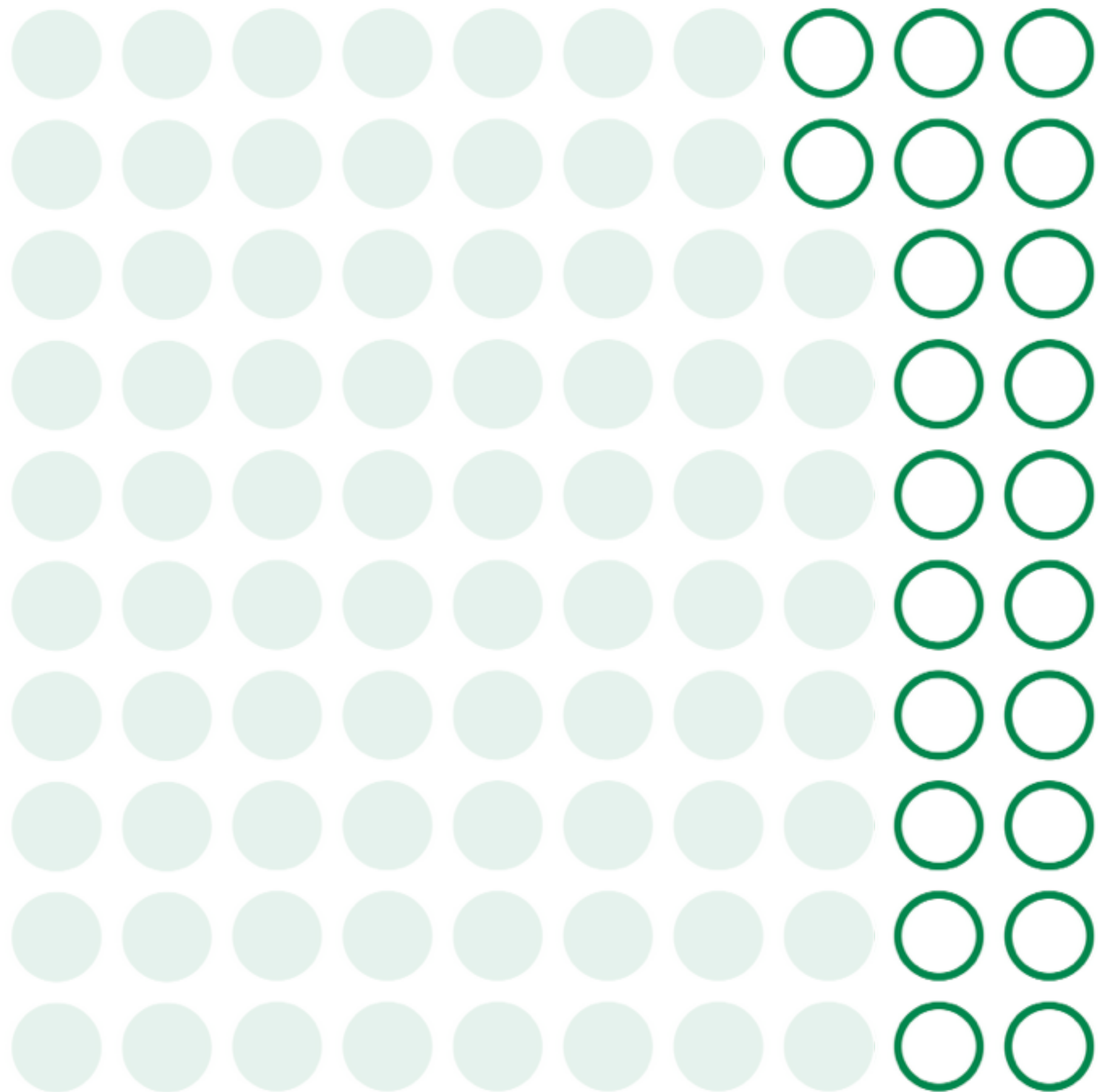
OF STUDENTS  
WHO TAKE

CS50

HAVE **NO PRIOR  
EXPERIENCE**

---





what ultimately matters in this course is not so much  
where you end up relative to your classmates but where  
you, in Week 12, end up relative to yourself in Week 0



**COMPUTER SCIENCE**

# computation

inputs, algorithms, outputs



"Everybody in this country should  
learn how to program a computer..."

inputs, outputs

# binary

0, 1

# decimal

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

100

10

1

1

2

3

$100 \times 1 + 10 \times 2 + 1 \times 3$

100

10

1

1

2

3

100

+

20

+

3

4

0

2

0

1

0

4

0

2

0

1

1

4

0

2

1

1

0

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4

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1

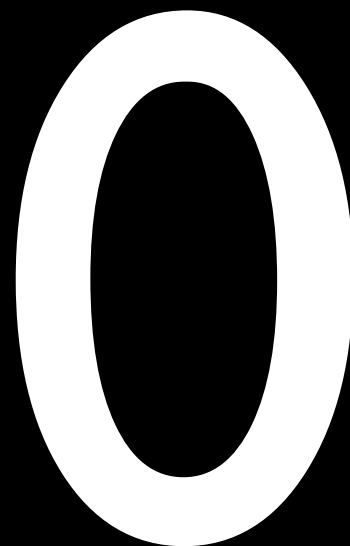
4



2



1



4



2



1







API



15

50

# ASCII

A	B	C	D	E	F	G	H	I	J	K	L	M
65	66	67	68	69	70	71	72	73	74	75	76	77
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
78	79	80	81	82	83	84	85	86	87	88	89	90

H I

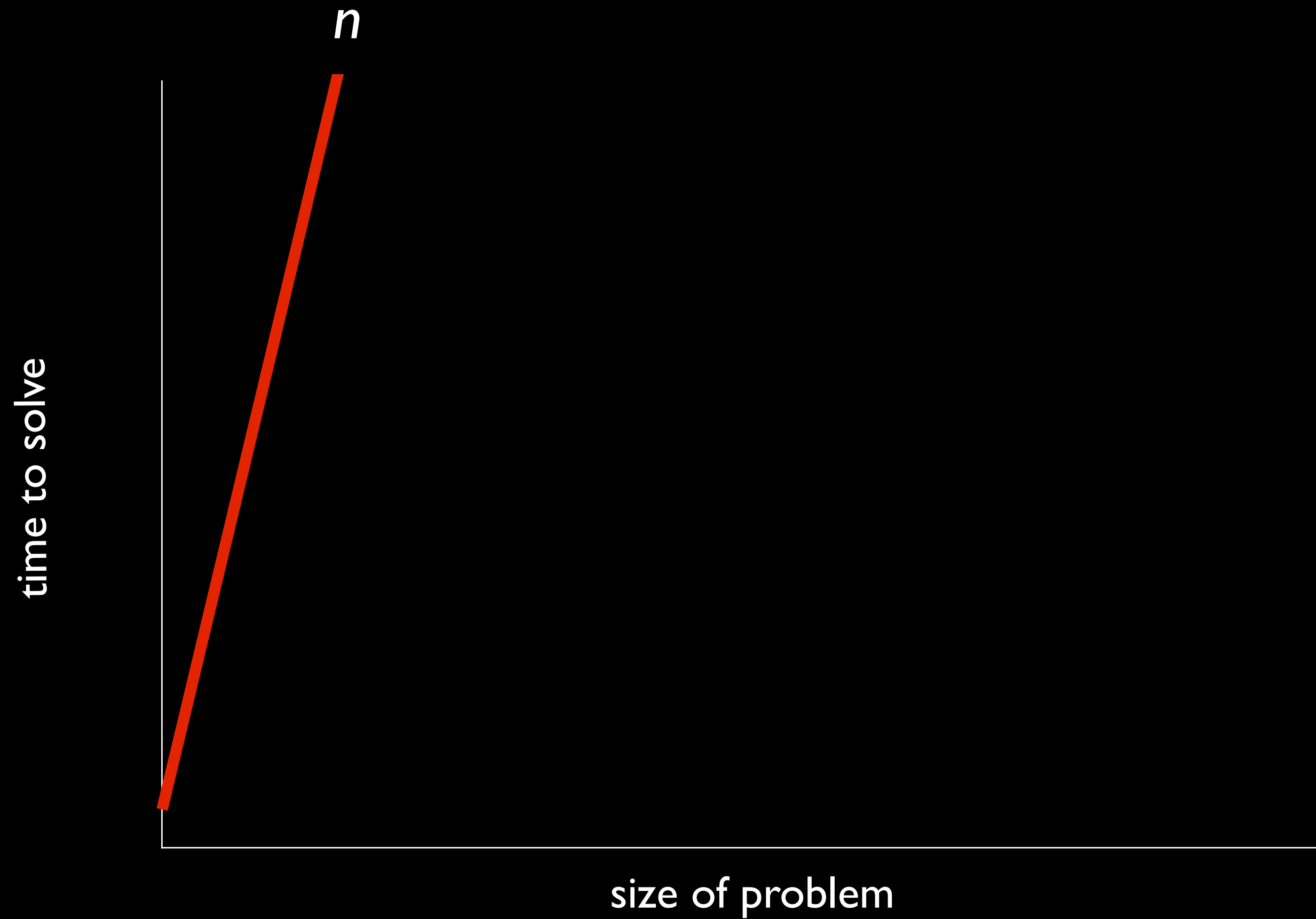
72 73

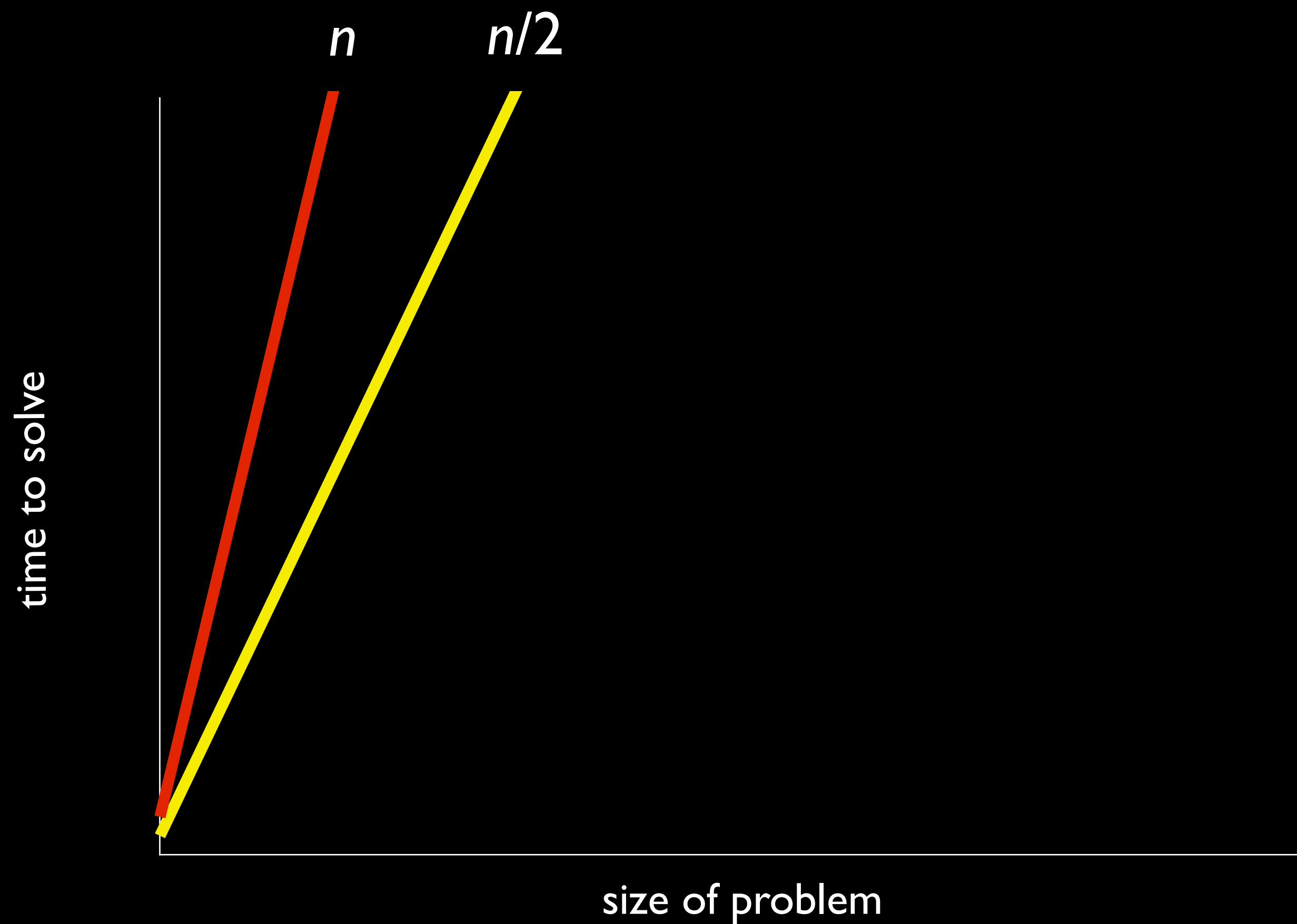
ALGORITHM

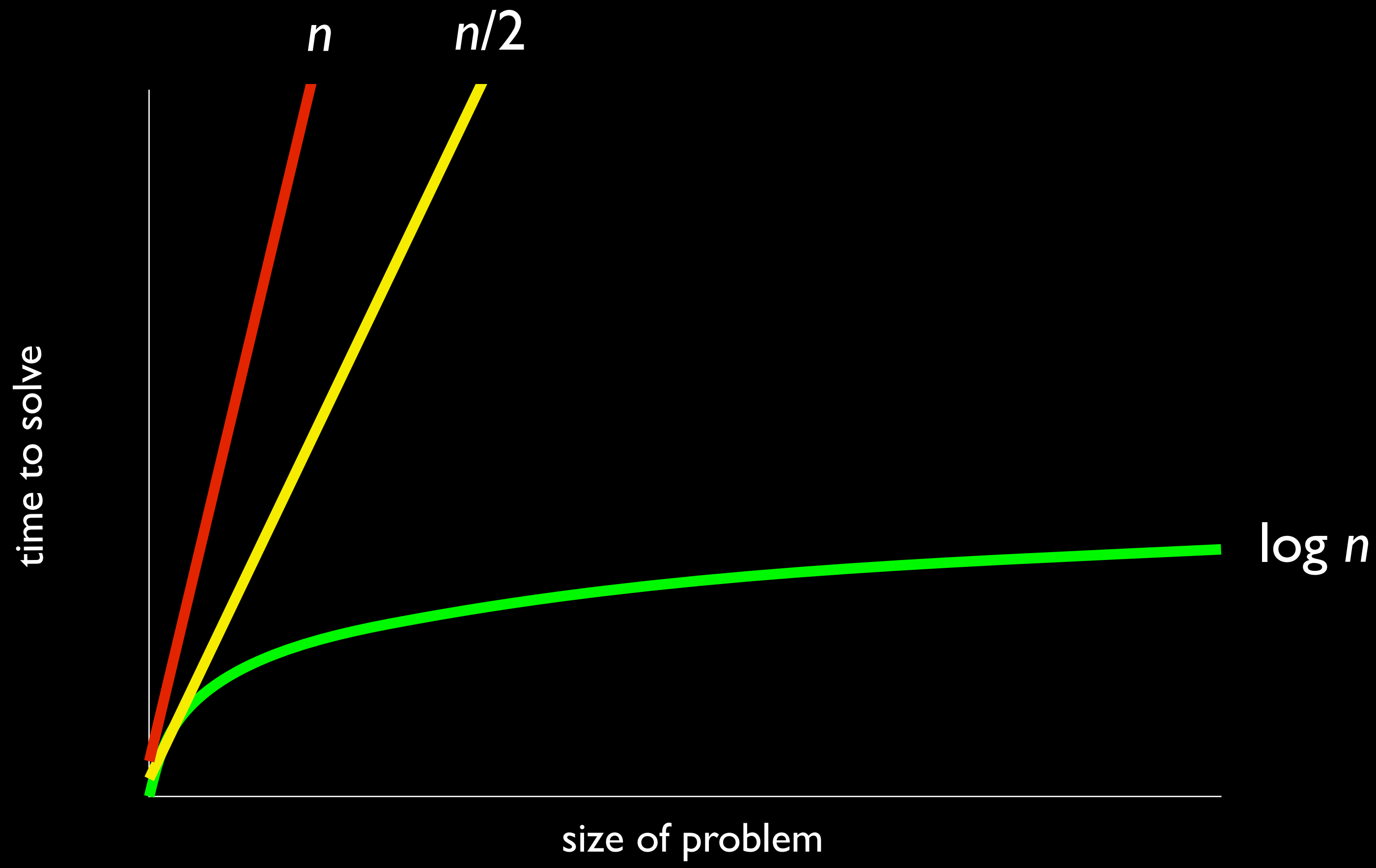
```
graph LR; A --> L; L --> G; G --> O; O --> R; R --> I; I --> T; T --> H; H --> M
```

The image displays the word "ALGORITHM" in a stylized, outlined font. Each letter is connected to the next by an orange arrow, indicating a sequential path through the word. The arrows follow the following sequence: A to L (diagonal up-right), L to G (horizontal right), G to O (horizontal right), O to R (diagonal up-right), R to I (horizontal right), I to T (horizontal right), T to H (diagonal down-right), and H to M (horizontal right).









pseudocode

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

syllabus

SAT/UNS

simultaneous enrollment

# lectures

1pm - 2pm

# sections

less comfortable, more comfortable, somewhere in between

# problem sets

walkthroughs, postmortems

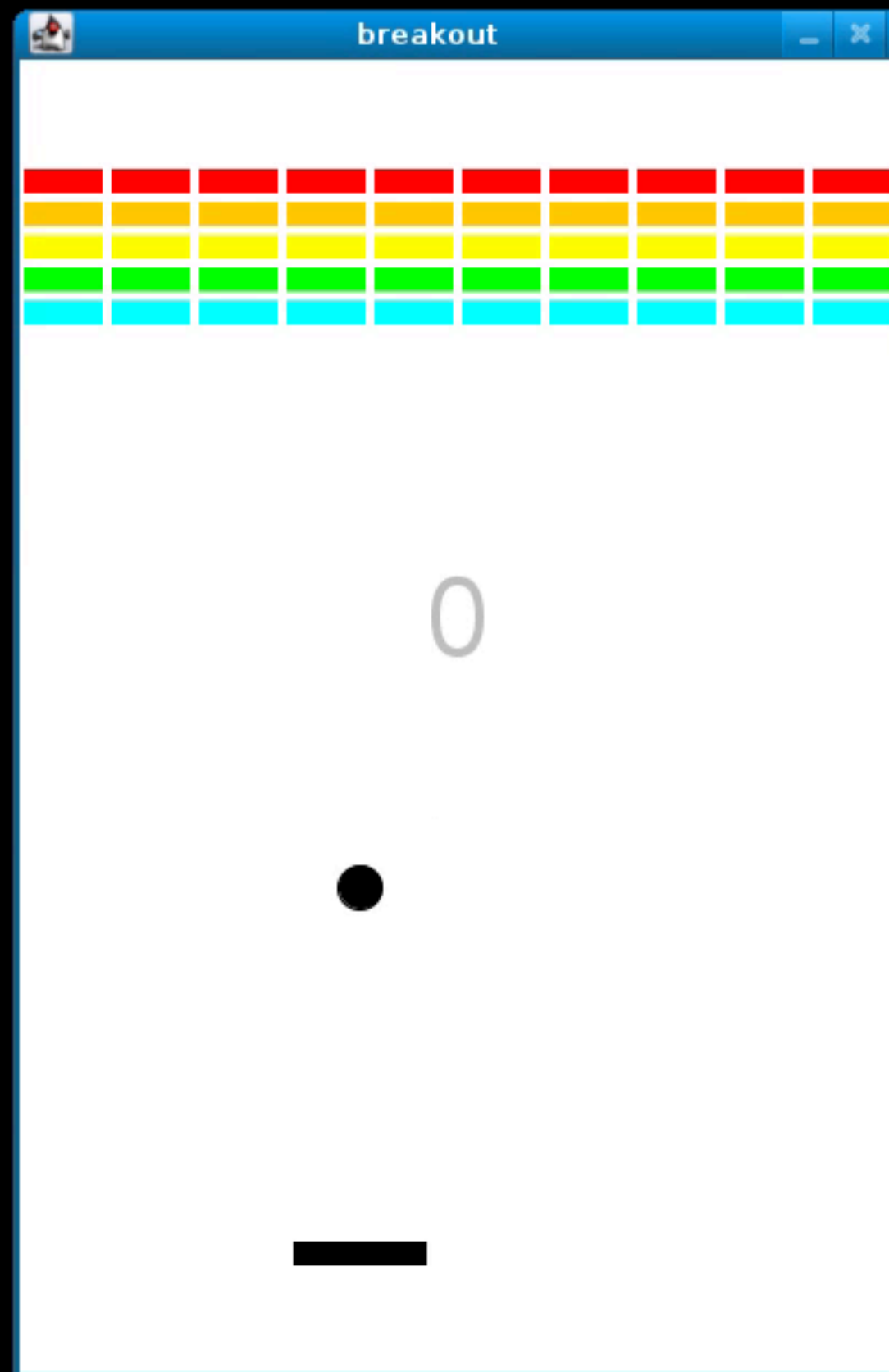
# problem sets

2 editions, 5 late days, lowest dropped

when  clicked

say hello, world!

uryyb, jbeyq!



| 43,09 |

C\$50 Finance

# final project

CS50 Hackathon, CS50 Fair

# office hours

Mon - Thu, 8pm - 11pm

tutoring

staff

heads@cs50.harvard.edu

[cs50.harvard.edu/register](http://cs50.harvard.edu/register)





This is CS50.