This is CS50
77% of the people around you have no prior experience

- Zero prior courses: 77%
- One course: 17%
- Two or more courses: 6%
gender

Women 37%

Men 63%
comfort

more comfortable: 12%
somewhere in between: 42%
less comfortable: 46%
size of CS50’s staff
an algorithm

1. stand up and think of the number 1
2. pair off with someone standing, add your numbers together, and adopt the sum as your new number
3. one of you should sit down; the other should go back to step 3
The graph shows the time to solve a problem as a function of the size of the problem. The time to solve is plotted on the y-axis, and the size of the problem is plotted on the x-axis.

There are three lines on the graph:

1. A red line labeled \( n \) which represents linear time complexity.
2. A yellow line labeled \( n/2 \) which represents linearithmic time complexity.
3. A green line labeled \( \log n \) which represents logarithmic time complexity.

As the size of the problem increases, the time to solve a problem with linearithmic complexity increases more slowly compared to linear complexity. Logarithmic complexity grows even more slowly as the size of the problem increases.
Omelette Recipe

1. Put egg in bowl.
2. ...
## Schedule A (Form 1040)

### Itemized Deductions

- **Medical and Dental Expenses**
  1. Medical and dental expenses (see instructions)...
  2. Enter amount from Form 1040, line 2...
  3. Multiply line 2 by 7.5% (0.075)...
  4. Subtract line 3 from line 1. If line 3 is more than line 1, enter 0...

- **Taxes You Paid**
  5. State and local (check only one box):
     - [x] Income taxes, or...
     - [ ] General sales taxes...
  6. Real estate taxes (see instructions)...
  7. New motor vehicle taxes from line 11 of the worksheet on back (for certain vehicles purchased in 2009). Skip this line if you checked box 5b...
  8. Other taxes. List type and amount...
  9. Add lines 5 through 8...

- **Interest You Paid**
  10. Home mortgage interest and points reported to you on Form 1098...
  11. Home mortgage interest not reported to you on Form 1098. If paid to the person from whom you bought the home, see instructions and show that person's name, identifying no., and address...

- **Gifts to Charity**
  12. Gifts by cash or check. If you made any gift of $250 or more, see instructions...
  13. Other than by cash or check. If any gift of $250 or more, see instructions. You must attach Form 8283 if over $500...
  14. Carryover from prior year...
  15. Add lines 12 through 14...

- **Casualty and Theft Losses**
  16. Casualty or theft loss(es). Attach Form 4684. (See instructions.)...

- **Job Expenses and Certain Miscellaneous Deductions**
  17. Unreimbursed employee expenses—job travel, union dues, job education, etc. Attach Form 2106 or 2106-EZ if required...
  18. Tax preparation fees...
  19. Other expenses—investment, safe deposit box, etc. List type and amount...
  20. Add lines 17 through 19...

- **Other Miscellaneous Deductions**
  21. Other—from list in instructions. List type and amount...

### Total Itemized Deductions

22. Add the amounts in the far right column for lines 4 through 28. Also, enter this amount on Form 1040, line 40...

- [ ] If you elect to itemize deductions even though they are less than your standard deduction, check here...

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For Paperwork Reduction Act Notice, see Form 1040 Instructions.
CS50 Puzzle Day, by Facebook

cs50.net/register
Dinner with CS50 and Facebook

cs50.net/rsvp
2,567 Facebook users
25,223 courses on shopping lists
7

average number of courses on shopping lists
125
most courses on someone’s shopping list
123
runner-up
3pm - 7pm
most popular time to be busy
7am - 10am
most popular time to be “busy”
Shuttleboy has been updated for 2011 – 2012. **Pre-order a new Shuttleboy Card.**

<table>
<thead>
<tr>
<th>Origin</th>
<th>Destination</th>
<th>Departs</th>
<th>Arrives</th>
<th>Duration</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>114 Western Ave</td>
<td>114 Western Ave</td>
<td>15 min from now</td>
<td>12:00</td>
<td>10 min</td>
<td>Quad Express</td>
</tr>
<tr>
<td>Boylston Gate</td>
<td>Boylston Gate</td>
<td>35 min from now</td>
<td>12:20</td>
<td>10 min</td>
<td>Quad Express</td>
</tr>
<tr>
<td>Harvard Square</td>
<td>Harvard Square</td>
<td>45 min from now</td>
<td>12:30</td>
<td>10 min</td>
<td>Quad Express</td>
</tr>
<tr>
<td>HBS Rotary</td>
<td>HBS Rotary</td>
<td>55 min from now</td>
<td>12:40</td>
<td>10 min</td>
<td>Quad Express</td>
</tr>
<tr>
<td>HKS</td>
<td>HKS</td>
<td>1.1 hrs from</td>
<td>13:10</td>
<td>20 min</td>
<td>Quad Stadium</td>
</tr>
<tr>
<td>Lamont Library</td>
<td>Lamont Library</td>
<td>1.4 hrs</td>
<td>13:10</td>
<td>20 min</td>
<td>Quad Stadium</td>
</tr>
<tr>
<td>Mass Ave Garden St</td>
<td>Mass Ave Garden St</td>
<td>1.6 hrs</td>
<td>13:30</td>
<td>20 min</td>
<td>Quad Stadium</td>
</tr>
<tr>
<td>Mather House</td>
<td>Mather House</td>
<td>1.8 hrs</td>
<td>13:30</td>
<td>20 min</td>
<td>Quad Stadium</td>
</tr>
<tr>
<td><strong>Memorial Hall</strong></td>
<td><strong>Peabody Terrace</strong></td>
<td>2.1 hrs</td>
<td>13:50</td>
<td>20 min</td>
<td>Quad Express</td>
</tr>
<tr>
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<td><strong>Pound Hall</strong></td>
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<td>14:00</td>
<td>20 min</td>
<td>Quad Express</td>
</tr>
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<td>Pound Hall</td>
<td>Quad</td>
<td>2.4 hrs</td>
<td>14:10</td>
<td>20 min</td>
<td>Quad Express</td>
</tr>
<tr>
<td>Quad</td>
<td>Soldiers Field Park</td>
<td>2.6 hrs</td>
<td>14:20</td>
<td>20 min</td>
<td>Quad Express</td>
</tr>
<tr>
<td>Soldiers Field Park</td>
<td>Stadium</td>
<td>2.8 hrs</td>
<td>14:30</td>
<td>20 min</td>
<td>Quad Express</td>
</tr>
<tr>
<td>Stadium</td>
<td>Winthrop House</td>
<td>2.9 hrs</td>
<td>14:40</td>
<td>20 min</td>
<td>Quad Express</td>
</tr>
<tr>
<td>Winthrop House</td>
<td></td>
<td>3.1 hrs</td>
<td>14:50</td>
<td>20 min</td>
<td>Quad Express</td>
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<td>15:50</td>
<td>20 min</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>4.2 hrs</td>
<td>16:00</td>
<td>30 min</td>
<td>River Houses A-B-C</td>
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<td>4.6 hrs</td>
<td>16:20</td>
<td>30 min</td>
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<td>6.4 hrs</td>
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<td>30 min</td>
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<td></td>
<td>10.4 hrs</td>
<td>22:10</td>
<td>35 min</td>
<td>River Houses A-B-C</td>
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</tbody>
</table>
hello, world
expectations

attend all lectures and sections
submit nine problem sets
take two quizzes
submit a final project
grades
Pass/Fail or letter grade
problem sets

editions, late days, lowest dropped
CS50 Appliance
#include <stdio.h>

int main(void)
{
    printf("hello, world!");
}
office hours
MTWTh
9pm - 12am
<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Course</th>
<th>Question</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Harry Potter</td>
<td>Dark Arts</td>
<td>I cannot seem to get my Potions to work...</td>
</tr>
<tr>
<td>2</td>
<td>Ron Weasley</td>
<td>Other</td>
<td>How do you get to the Chamber of Secrets?</td>
</tr>
<tr>
<td>3</td>
<td>Hermione Granger</td>
<td>History of Magic</td>
<td>I found several mistakes in our textbook and would like to discuss them.</td>
</tr>
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<td>How do you cast spells?</td>
</tr>
<tr>
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<td>The Order</td>
<td>How can I escape Azkaban?</td>
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<tr>
<td>6</td>
<td>Albus Dumbledore</td>
<td>Dark Arts</td>
<td>Why are you not enrolled in CS50?</td>
</tr>
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<tr>
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<tr>
<td>Minerva McGonagall</td>
<td></td>
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<tr>
<td>Pomona Sprout</td>
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<tr>
<td>Filius Flitwick</td>
<td></td>
</tr>
<tr>
<td>Severus Snape</td>
<td></td>
</tr>
</tbody>
</table>
lectures
Welcome
HES, HBS, Belmont High, Watertown High, OCW
week 0

week 1

C. Source code. Compilers. Object code. SSH. SFTP.
GCC. Functions. Comments. Standard output.
Arithmetic operators. Precedence. Associativity. Local
Boolean expressions, continued. Conditions, continued.
Loops, continued.
week 2

week 3

week 4

week 5

week 7

week 8
HTTP. HTML. PHP. SQL.
week 9

week 10
JavaScript, Continued.
sections
psets
数独
Teh Computer Science 50 learnz you about intertubes in teh cloudz. David J. Malan will pwn u ftw so watch out!
CS50 ↑ 120
Address:
1 Oxford St
Cambridge, MA 02138

Get directions: To here - From here
Search nearby - Save to My Maps
Edit
walkthroughs
CS50 Lounge

lounge.cs50.net
cs50.tv

David: Welcome, my name is David Malan and this is CS50. And, this is not your typical high school computer science course. This course is a little something special. And it's not because I'm teaching it. It's because this is one of, we like to think, those rare courses that actually squeeze your brain so much and your schedule so much that by semester's end you genuinely feel smarter. So, that was the way I felt when I myself took this course back in 1996. I was a government major at the time here living in Mather House. And, I.

Cheering

As are the other five others there. So, I was a government major at the time. And I was a government major because I'd always liked history. I liked constitutional law in high school. And so, I set off on this path freshmen year doing what I do best, doing what I knew I liked. And I'd always been a bit of a geek, I'd always babble with computers. But, myself, perhaps ironically in retrospect, I'd always viewed the guys who were taking computer science in my high school, my friends as the real geeks. And yet, finally did, sophomore year I take this little course called CS50 which actually had scared me away my own freshman year. And I was a user assistant at the time. So, I was certainly already qualified, at least, to be among those, those geeks who I used to hang out in high school.
CS50 Hackathon
8:00pm - 7:00am
77% of the people around you have no prior experience.

- Zero prior courses: 77%
- One course: 17%
- Two or more courses: 6%
to be continued...