# CS50 Section. Week 4. 9/28/15.

*Tuesdays 7:00-8:30pm, Science Center 309A*

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Grab this handout at http://is.gd/neel_cs50_4.

## Resources

- C language reference: https://reference.cs50.net/
- CS50 Study: https://study.cs50.net/
- CS50 Discuss: https://cs50.harvard.edu/discuss
- CS50 Style Guide: https://manual.cs50.net/style/
- These andouts and practice problems: https://github.com/hathix/cs50-section

# pset3 tips

## Search

- For generate.c, make sure your comments describe *why* the code is doing what it's doing, not just *what* it's doing.

## Sort

- Try implementing all 3 sorting algorithms we discussed (bubble, insertion, selection.)
- FWIW, insertion sort is the easiest to implement.
- You can test your sorting function in the same way you tested search (i.e. using `./generate` and `./find`.) But also test some edge cases like entering zero or one haystack elements.

## Game of Fifteen

- Implement functions in order of `init`, `draw`, `move`, `won`. You can start testing the game a little once you're done `draw`, and more fully once you're done `move`.
- Don't touch anything outside those 4 functions! CS50 says you can if you want to, but you don't need to and changing things will only break stuff.

- Know that, for a 2-dimensional array, you access the row first, then the column. In other words, you go down and then right. For instance, `board[2][3]` goes down 2 spaces and right 3 spaces.
- To print out a number with padding, try

```
// if x == 7, this prints " 7"
// if x == 12, this prints "12"
// (the number before i indicates how many spaces to pad to)
printf("%2i", x);
```

# General pset tips

Make sure your pset passes `style50` and `check50` (i.e. doesn't generate any frowny faces.) You can't get full credit on correctness and style unless your code passes these!