

# CSE 121 Final Exam Resource Bank

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*Special thanks to 24au TAs Abby Williams & Elizabeth Shirakian for this version of this doc!*

## Preparation

- ☐ Read the [exam logistics page](#) on the course website and ask any questions on Ed
- ☐ Make your reference sheet (one 8.5x11" sheet of paper, both sides) as described in the [exam rules](#)
- ☐ Attend (or watch) the review session on **Sun, Mar 16 from 5:30–7:50 PM in ARC 147**
- ☐ Check your assigned seat and room on [exam page of the website](#)
- ☐ On exam day (**Tuesday, March 18th from 12:30-2:20**), bring:
  - ☐ Husky Card
  - ☐ 1-page reference sheet
  - ☐ Pencils/erasers/highlighters/etc

## Suggested Study Strategy

Also see: Judy & Elizabeth's wonderful [Tips for the Final Exam page!](#)

1. Figure out **what** you need to review (and add to your cheatsheet).
  - a. Take a practice exam with only the reference sheet.
  - b. Simulate a test-taking environment: time yourself, take it alone on paper in a quiet space, and only have the allowed materials.
  - c. Grade your practice exam using the solutions.
  - d. Note which questions you missed and *why*. Don't focus on syntax errors or other minor bugs; instead, what did you not fundamentally understand?
    - i. Identify the topics you do not understand  
(e.g. array counting, String manipulation, expressions)
    - ii. Identify the types of questions you struggle with  
(e.g. code comprehension, debugging, programming)
2. Review past quiz and section problems on those topics and question types. Simulate a test-taking environment (especially – time yourself, use only the reference sheet!).
  - a. If time allows, get help on concepts at IPL, office hours, or review session!
3. Create your cheatsheet, focusing on the topics that still feel fuzzy or confusing.
  - a. see below for cheatsheet tips!
4. Repeat step 1 (with a new exam & your new sheet), and optionally 2-3 again.

## Helpful Website Links

- [Exam page](#)
- [List of all past exams](#)
- [List of all section cheatsheets](#)

## Tips for Making Your Own Cheatsheet

Handwriting sheets is really good for understanding them, but typed out ones can be easier to organize and read. If you have time, we highly recommend:

1. writing up your sheet on a piece of paper first, and iterating as you do your practice
2. once your sheet is finalized, *then* transcribe onto a document & print

Confused on how to print? Take a look at the [DawgPrints website](#) (and their [printing FAQ](#)).

## Practice Problems by Topic

Here is a list of helpful problems from Section banks, Extra Practice banks, and *Practice-It*\*. Focus on the topics you find most challenging. There's no need to complete them all. Some problems may be familiar from section or past reviews. If you struggled with any before, try resetting to scaffold and solving them again to address misconceptions.

**\*Note:** *Practice-It* is a review resource created for CSE 14x, so the topic order may differ from CSE 121. Relevant problems have been included here but feel free to explore the site on your own. Solutions are not provided, but each problem includes tests. Log in using your UW credentials. You should do the *Practice-It* problems only **after** you have gone through the Section and Extra Practice bank problems.

### Data Types, Expressions, and Variables

- ☐ Section 2: [Displacement](#)
- ☐ Section 3: [ProcessName](#)
- ☐ Section 3: [FormatName](#)
- ☐ Extra Practice: [Expressions Review](#)
- ☐ Extra Practice: [Relational/Logical Operator Review](#)
- ☐ Practice-It: [expressions](#)
- ☐ Practice-It: [maxMin](#)

## For Loops

- ☐ Section 4: [SumEvenOdd](#)
- ☐ Section 4: [Reverse String](#)
- ☐ Extra Practice: [Exponent](#)
- ☐ Extra Practice: [Summing Up](#)
- ☐ Practice-It: [StarFigure](#)
- ☐ Practice-It: [isPalindrome](#)

## Nested For Loops, Random, and Math

- ☐ Section 5: [Random Star](#)
- ☐ Section 5: [Nested Numbers](#)
- ☐ Section 5: [Pyramid](#)
- ☐ Extra Practice: [Multiplication Tables](#)

## Methods, Parameters, Return Values, and Scope

- ☐ Section 6: [Repeat the Word](#)
- ☐ Section 6: [SubString](#)
- ☐ Section 6: [Include Middle](#)
- ☐ Practice-It: [ParameterMysteryFarm](#)
- ☐ Section 7: [Returns Mystery II](#)
- ☐ Section 7: [Exponentiate \(Debugging\)](#)
- ☐ Section 7: [Replace Word](#)

## Conditionals

- ☐ Section 9: [Conditionals Mystery 2](#)
- ☐ Section 9: [Quarters](#)
- ☐ Section 9: [Seasons](#)
- ☐ Section 9: [Budgeter](#)
- ☐ Practice-It: [quadrant](#)

## While Loops and User Input (Scanner)

- ☐ Section 11: [While Loops Mystery 2](#)
- ☐ Section 11: [Trick or Treat \(Debugging\)](#)
- ☐ Section 11: [Treasure Hunt](#)
- ☐ Section 11: [Even Sum Max](#)
- ☐ Extra Practice: [Random Walk](#)

- ☐ Practice-It: [showTwos](#)
- ☐ Practice-It: [rollSix](#)


### Arrays and Reference Semantics

- ☐ Section 13: [Stretch](#)
- ☐ Practice-It: [arrayMystery5](#)
- ☐ Practice-It: [isSorted](#)
- ☐ Section 14: [Reverse](#)
- ☐ Section 14: [Reference Mystery 1](#)
- ☐ Section 14: [Reference Mystery 2](#)
- ☐ Section 14: [Swap Pairs](#)
- ☐ Section 14: [Copy Range](#)

### 2D Arrays


- ☐ Section 15: [2D Array Mystery](#)
- ☐ Section 15: [Find Row Sums](#)
- ☐ Section 15: [Increasing Columns](#)
- ☐ Extra Practice: [Transpose Array](#)

## Challenging problems to try again

Copy-paste this icon after you're totally confident with solving the problem! 

*Otherwise, read/understand the solution code and try again some other day!*

*Example:*

|           |   |                                     |   |
|-----------|---|-------------------------------------|---|
| 2D Arrays |  | Section 15 Problem<br>Find Row Sums | <a href="https://edstem.org/us/courses/70322/lessons/125853/slides/700075">https://edstem.org/us/courses/70322/lessons/125853/slides/700075</a> |
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