



**Q: Who has office hours on Wed. April 16 at 9am?**

- A. Ola
- B. Sam
- C. Kate
- D. Kelly
- E. Abby



# CPSC 100

# Computational Thinking

## Course Wrap Up

**Instructor: Parsa Rajabi**  
**Department of Computer Science**  
**University of British Columbia**



# Agenda

- Course Admin
- Final Exam details
- Course reflection / feedback
- AMA
- Wrap up

# Course Admin



# Course Admin

- **Project Milestone 3** *(you should be ~99% done by now!)*
  - Due Monday, April 7, 11:59pm
  - Make sure to submit your **AI Disclosure** via qualtrics form!
- **Final Exam**
  - Tuesday, April 22, 7pm; Location: SWING 121

# Final Exam



# Final Exam Details



Tuesday, April 22,



SWING

121



7-9:30pm

- Arrive by 6:30, doors open ~6:45-6:50
  - Do not enter room until instructed to do so
- Account for possible delays (transit, weather, etc.)
  - Late arrivals will not be provided extra time
- *Emergency? Email Parsa (instructor) & your faculty advisor.*

Registered

with

CFA?

- Contact CFA office to book exam (your responsibility)



# Final Exam Details

- All content covered throughout the course
  - Lecture Notes, Labs, PC Quizzes, In-class/ take-home activities/discussions, etc.
  - TA lectures (Parsa/Kate) will **NOT** be on the exam.
- Closed book, paper-based exam
  - One double-sided letter-size cheat sheet  
*(can be handwritten or typed/with screenshots)*
- No electronics allowed





# Final Exam Details

- What to bring to exam?
  - UBC Student ID
  - Pencil (recommended), pen, eraser
    - Practice your handwriting / speed
    - Illegible answers (bad writing) will be marked as 0
  - **A smile**





# Practice Final Exam



# Practice Final Exam

- The focus of the practice exam is to provide you with a **sample** of how questions are worded/presented. The difficulty level, # of questions and content *could* be different.



# Practice Final Exam

- The focus of the practice exam is to provide you with a **sample** of how questions are worded/presented. The difficulty level, # of questions and content *could* be different.
- To be released by **Sunday, April 13** (at the latest)
  - Alongside **iClicker solutions**
- Answer key will not initially be posted
  - You're encouraged to recreate the exam environment.
  - Attend final exam office hours to receive help!
  - Answer key to be released **Friday, April 18**

# Exam Advice



# Final Exam Advice

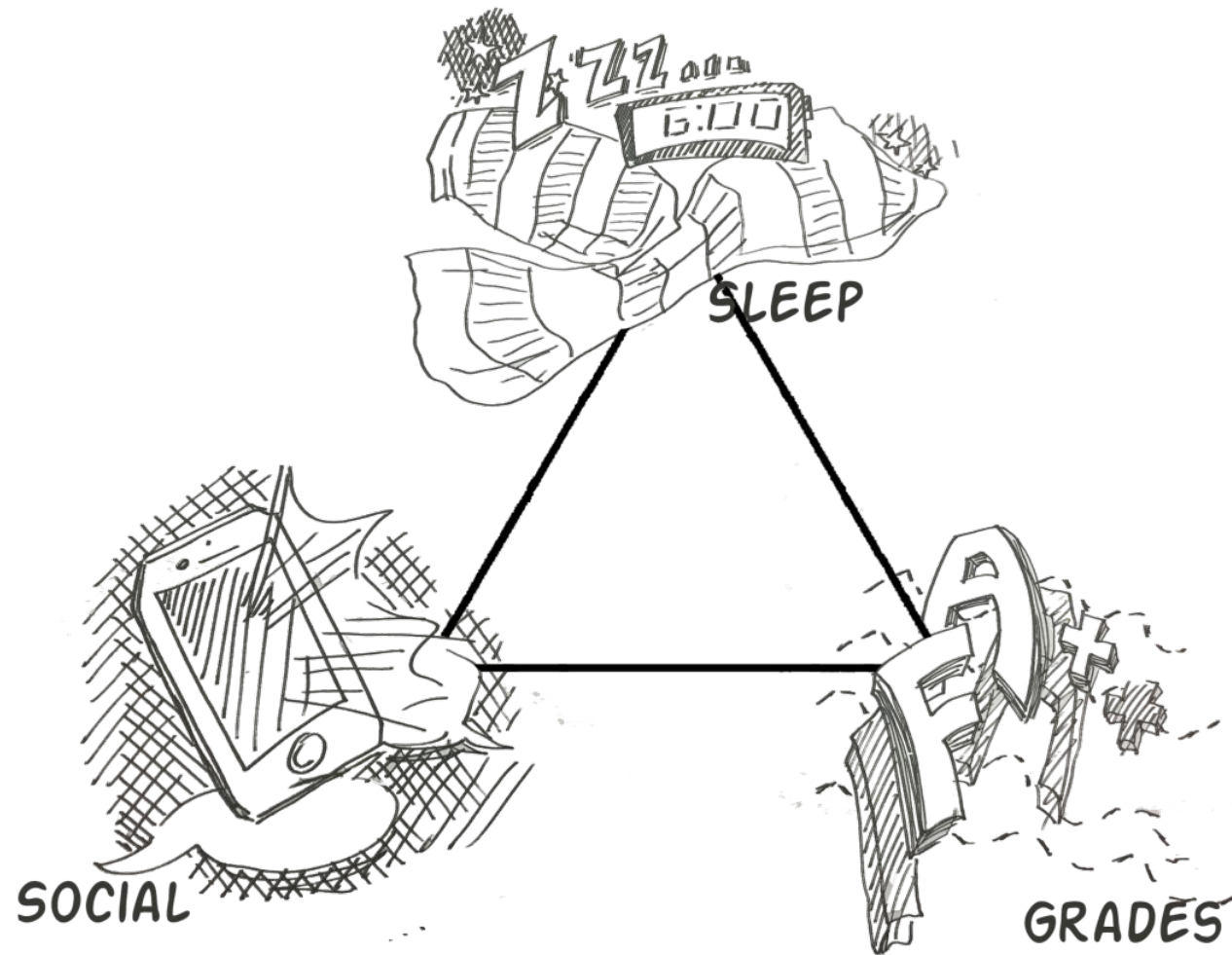
- Studying:
  - Start with a plan, breakdown the course into "chunks".
  - Do not "cram" the night before, learning takes time.
  - Do not underestimate sleep, esp. for problem solving.
  - Unsure of a concept? **Visit final exam office hours.**



# Final Exam Advice

- Studying:
  - Start with a plan, breakdown the course into "chunks".
  - Do not "cram" the night before, learning takes time.
  - Do not underestimate sleep, esp. for problem solving.
  - Unsure of a concept? **Visit final exam office hours.**
- During the exam:
  - Read the question carefully. Underline important parts.
  - Scan through the exam, start with what you know.
  - Use question points to determine answer depth/detail.







# Course Review

# Computational Thinking

# What is Computational Thinking?

“Computational thinking is the **thought processes** involved in **formulating problems and their solutions** so that the solutions are in a form that can be **effectively** carried out by an **information-processing agent**”

[Cuny, Snyder, Wing]

# Computational Thinking Skills

● Decomposition

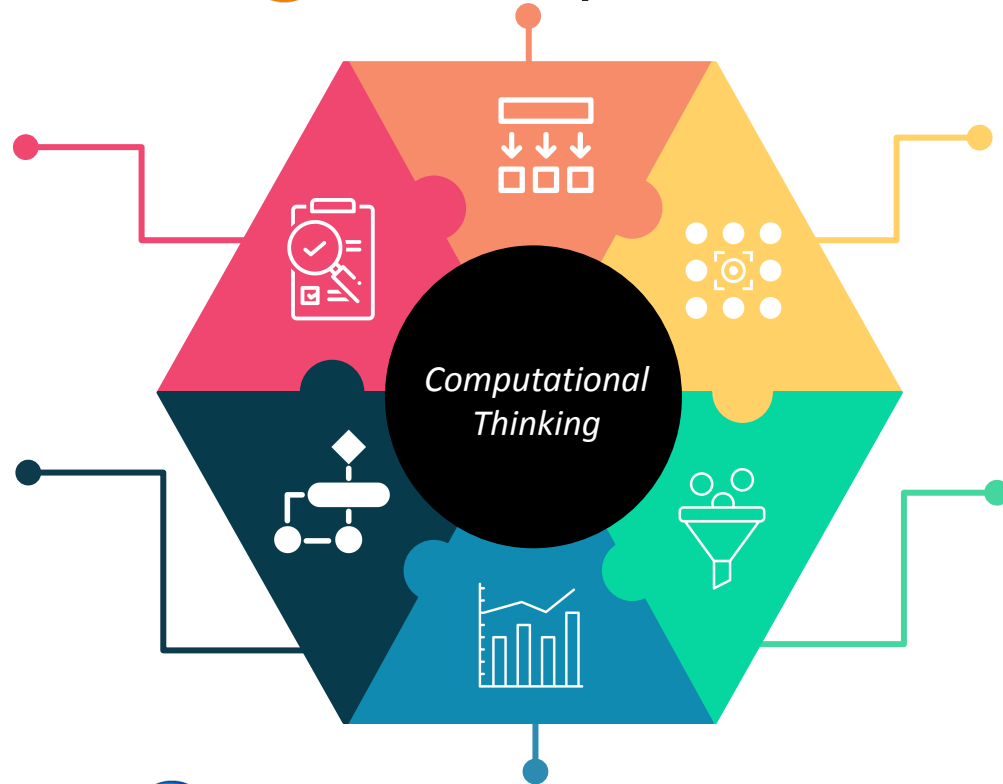
● Pattern Recognition

● Evaluation

● Algorithms

● Abstraction

● Modelling & Simulation





# Course Review [Pre-Midterm]

## ➤ Algorithms ●●●●●

- Classification, Trees and Entropy
- Sequential, Breaking Bad

## ➤ Artificial Intelligence ●●●●●

- Generative AI
- Natural Language Processing (NLP)
- Ethical dilemmas

## ➤ Computer Basics ●●●

- Hardware / Software
- Social Implications

## ➤ Snap Programming ●●●●●

- Conditionals
- Mod Operator
- Loops
- Logic Functions
- Code Tracing

● Evaluation	● Legend	● Decomposition
● Pattern Recognition		● Abstraction
● Modelling & Simulation		● Algorithms



# Course Review [Post-Midterm]

- **Prompt Engineering** ●●●●●
- **Data Representations** ●●●●●●
  - Binary, Hexadecimal, ASCII, etc.
  - Conversion Algorithms
  - RGB Colours
- **Bioinformatics** ●●●●
- **Visualizations** ●●●●●
  - Pixels
  - Static Graphs
  - Interactive Graphs
- **Infographics** ●●●●●
  - Principles
  - Gestalt Principles
  - Storytelling
- **HCI** ●●●●●
  - Usability Heuristics

<b>Legend</b>	
● Evaluation	● Decomposition
● Pattern Recognition	● Abstraction
● Modelling & Simulation	● Algorithms





# Where to next?

- Intro to Programming
  - CPSC 103 + 107
  - CPSC 110
- Intro to AI
  - CPSC 322
- Algorithms
  - CPSC 221
  - CPSC 320
- Computers & Society
  - CPSC 430
- Hardware & OS
  - CPSC 313
- Machine learning
  - CPSC 340
- Visualizations
  - CPSC 447
- HCI
  - CPSC 344
  - CPSC 444



# Want to learn more?

- Free resources to learn programming
  - [CS50](#) @ Harvard
  - [Code in Place](#) @ Stanford
  - [Scrimba](#)
  - [FreeCodeCamp](#)
  - [Codecademy](#)
- Other resources
  - [Google Education - Intro to Python](#)
  - [Khan Academy - Basics of Programming](#)

# Course Reflection



# Course Reflection Activity

- Suppose our course was a baking experience, in groups of 2-3, reflection on the course experience:
  - The Best Bites
  - Recipe Flops
  - Magic Ingredients
  - Next Bake Plans
- Write your answers on this board, in your designated #
  - [Link to Miro Board](#)

# Discussion

Ask

Me

Anything\*

*\* within reason*

# Wrap up







*Generated by ChatGPT*



# What was your main takeaway from today's session?

