# Analysis of Algorithms

### Calvin Higgins

Department of Computer Science and Statistics University of Rhode Island

September 17, 2025

## Warmup Problem

#### When You Enter The Classroom:

• Program the following function:

```
bool one_sum(int* A, int n, int target) {
    // TODO: Return true iff 'A' contains 'target'.
}
```

- Analyze the number of array accesses:
  - Assume an input of size n.
  - How many array accesses (like A[i]) does your algorithm(s) perform?
    - Give a formula T(n).
  - What does T(n) mean, in terms of your algorithm(s) runtime?

## Write your group's work on the whiteboards!

### Lab Directions

### Begin These Now:

- Consider attending the review session:
  - Analysis of algorithms and asymptotic notation (2:00-2:50PM)
  - Assignment help (3:00-4:00PM)
  - This Friday at 2:00-4:00PM in Engineering 040
  - Ask your group members if they are going!
- Create a new project in your IDE for Lab 2
  - If you aren't sure how to do this
    - Ask a group member
    - Search for documentation
    - Chat with AI
  - If you are still stuck, call over a staff member
- Work through the lab handout
  - Available on GitHub under labs/lab-02
  - https://github.com/URI-CSC/212-fall-2015
    - Yes, it is 2015 not 2025
  - All directions available in the lab handout