

The image features a background of a circuit board with various traces and circular components. A dark horizontal band runs across the middle of the image, serving as a backdrop for the text.

# CMSC 131

Fall 2018

# Announcements

- Project #7 has been posted (Demo?)

# More Big-O Examples

What is the asymptotic complexity (Big-O) for these?

- Inserting at the front of an array
- Inserting at the front (head) of a linked list
- Access the  $i^{\text{th}}$  element of an array
- Access the  $i^{\text{th}}$  element of a linked list
- Fawzi's algorithm for staffing

# Recursion: Dish Washing Example

- Demonstration with human volunteers
  - With iteration
  - With recursion

Rules for my “clone”:

- Can't give him the entire job
  - Must do same task as me (on subset of data)
  - Can't work simultaneously with me
- Let's write some code for “dish washing”
  - With iteration
  - With recursion
- What's the running time (big-O) for these algorithms?