

The background of the slide is a grayscale image of a circuit board. It features a complex network of black lines representing traces and several solid black circles representing vias or components. The circuitry is arranged in a somewhat symmetrical, horizontal pattern. A solid black horizontal band runs across the middle of the image, partially obscuring the circuit board design. Below this band, the text 'CMSC 131' is displayed in a large, white, sans-serif font. Underneath the course number, the text 'Fall 2018' is written in a smaller, green, monospace-style font.

# CMSC 131

Fall 2018

# Announcements

- Project #3 is due Tomorrow
- Project #4 will be posted tomorrow (Good JUnit practice)

# Commenting

- Recall: Two styles for comments
- What is the purpose?
- Where do we put them?
  - At the top of every class
  - Above every method
    - Defines “contract”
    - Pre- and Post-conditions
  - Frequently when declaring a variable
  - Throughout code, in places where clarifications are helpful
- How many comments should we write?
- We will be grading for comments starting with project #4

# Floating Point Calculations

Example: `StrangeCalculation.java`

- What went wrong here?
- Under what circumstances does “roundoff error” occur?
- Why does my calculator appear to be better at this?

How can we “fix” this?

Example: `Epsilon.java`

Pro Tips:

- Don't use `==` to compare result of calculation with theoretical result
- Use integers whenever possible (e.g. representing money)