Anyone have any general questions?

- Not about the PSA, we'll get to that!
- We'll also do some exam review
conect four

- This week we will look at the real code
- This code will be made available some time Sunday

TO THE CODE!
What is on the exam?

- everything of course!
- especially Objects/Classes
- especially methods
- especially constructors
- especially scop
- especially memory models
- What about for loops?
  - yes those too!
- GUI
  - yes that too
Object vs Class

what is an Object?
what is a Class?
how are they different?
why do we care?
Object vs Class

what is an Object?
• an object is an instance of a class in memory

what is a Class?
• A class is the blueprint from which individual objects are created

why do we care?
• organization of thoughts and data
that's nice but i still don't get it

Think of the computer as a baker.
Think of a class like a recipe.
Think of an object as a cupcake.

A baker takes the recipe and bakes a cupcake. The recipe tells the baker what's in a cupcake, how to make a cupcake and what can be done with a cupcake.
uh, still confused and now hungry

TO THE BAKERY
Real Java Example:

CupCakes.java (on class schedule)
help us to help you

- **debug messages are great**
  - but cause problems when grading
  - ALWAYS remove debug statements BEFORE you turn in
- **Break the problem down**
  - Classes, Methods etc. are designed to take big ideas and break them down into people size chunks
- **Know the problem before tackling it**
  - The idea is to represent the problem in the computer
  - can't do that until you know what the problem is
- **Lastly WRITE things down**
  - don't try to do things in your head
keep up the good work!

THE #1 PROGRAMMER EXCUSE FOR LEGITIMATELY SLACKING OFF:

"MY CODE'S COMPILING."

HEY! GET BACK TO WORK!

COMPILING!

OH. CARRY ON.