Midterm prep
What’s on the exam?

Your name (a few points)

“What does this print”

• Sequential execution – trace variable values
• Conditional execution (if) and boolean values
• Loops (for and while)
  – May require finding a pattern
• Method calls
  – Variable scope
  – Parameters and results
• Arrays

Write method(s) to ...
Code-writing problems

Follow javadoc specs precisely
Typically involves
  Loops, conditions
  Arrays
  Parameter passing and variable scope

Likely: At least one easy, one or two harder

Does *not* emphasize memorizing language and library details
Example problem: Fall 2010, #3

What does this code print?

```java
int sum = 0;
for (int i = 1; i < 5; ++i) {
    if (i % 2 == 0) {
        sum = sum + i;
    }
}
System.out.println(sum);
```
Example: Fall 2010, Q#4

```java
static int sqdiff(int a, int b) {
    int diff = a * a - b * b;
    return diff;
}

static void q4() {
    int a = 3;
    int b = 4;
    a = sqdiff(b, a);
    System.out.println(a);
}
```
Example: Fall 2010, Q#5: Write code

/**
 * Determine whether any of the letters in a word
 * occur more than once.
 * @param word A string containing one or more letters
 * and nothing else.
 * @return True if there is at least one letter in the word
 * that appears two or more times in the word;
 * false if each letter appears only once.
 *
 * Example: hasDups("computer") returns false
 * Example: hasDups("science") returns true (two ‘c’)
 */
static boolean hasDups(                                  ) {