

For Monday

- Read Becker, 7.5
- Scanner handout
- Recommended practice problems:
 - Chapter 7, problems 11-15

Program 5

- Any questions?

Questions before the quiz?

Quiz

toString

Common String Methods

- charAt
- compareTo
- equals
- indexOf
- length
- startsWith
- replace
- substring
- toLowerCase
- toUpperCase
- trim
- reverse

isPalindrome

- Let's write a method that accepts a string and determines whether that string is a palindrome.

Class Variables

- Some variables apply across all objects of a class.
- Consider the interest rate on savings accounts.
- Consider assigning consecutive id numbers to objects.
- Class variables are RARELY needed.

Class Methods

- Some methods don't refer to instance variables.
- They may operate only on class variables.
- They may simply operate based on their parameters.
- These methods are called by class name instead of object.

- Write a **method** to compute the sum of all integers between first and second (including first and second), where first and second are integers and $\text{first} \leq \text{second}$. The method should return the sum. You may not change the value of either first or second.

- Write a method to find the smaller of two integers. The method will accept two integers and return the smaller of the two. If they are the same, then the method returns either one of them.

- A carpenter computes the price of a desk as follows:
 - The charge for all desks is a minimum of \$200
 - If the surface (length * width) is over 750 square inches, add \$50
 - If the wood code is 1 (mahogany), add \$100. If the wood code is 2, add \$75. If the wood code is 3 (pine), there is no extra charge.
- Write a method that takes the surface of a desk and the wood code and returns the cost of the desk.

- A company gives bonuses based on production as follows:
 - 1000 units or fewer, the bonus is \$25
 - 1001 to 3000 units, the bonus is \$50
 - 3001 to 6000 units, the bonus is \$100
 - 6001 units and up, the bonus is \$200
- Write a method that accepts the number of units produced and determines the bonus for the employee. Return the bonus.

- Write a method to determine the purchaser's discount based on a code.
 - If the code is 7, the discount is 10%.
 - If the code is 3, the discount is 15%.
 - If the code is 12, the discount is 4%.
 - If the code is 1, there is no discount.
 - If the code is 8, the discount is 30%.
- The method should return the discount. Use a switch statement.