

# For Wednesday

- No reading
- No practice problems

# Exam 2

- Wednesday
- CVA 147
- 8-10 pm
- Covers material through chapter 8 and program 6

# Program 7

# Array Practice

- Create an array to hold the tax for up to 10 different sales
- Create an array to hold the final letter grades for a class with up to 40 students
- Create an array of integers which holds the final average for those 40 students
- Create an array of characters with initial values 'a', 'd', 'y', and 'w'
- Assign  $TAX\_RATE * price$  to the first item in your first array

# Problem 1

- Write Java code to read values from the keyboard to fill the array `scores`. Input should stop when a negative number is entered. The maximum size of the array is in a constant `ARR_SIZE`.

# Problem 2

- Write Java code to add up the first `num_elements` values in the array `myVals` and store the sum in the variable `mySum`.

# Searching An Array

- Search through array for particular element
- Why would we want to do this?
- How can we do it?

# Linear Search

Set found to false

Start with initial array element

DOWHILE not found and more elements

    IF the current element matches the target THEN

        set found to true

    ELSE

        advance to next element

    END IF

ENDDO

IF found THEN

    return current index as the search result

ELSE

    return -1 as the search result.

END IF

# The Biggest Index

- Write a method, `MaxIndex`, that receives as parameters an integer array and the number of elements in that array. The function should return the `index` (not the value) of the largest element in the array. If there is more than one element with that value, return the index of the first element with the largest value.

# Practice

- Declare and create an array of Employee objects.
- Declare and create an array of TimeCard objects.
- Assume Employee has methods getName() and computePay(int hours). Assume TimeCard has a method getHours. Further assume that the arrays declared above have been filled with corresponding information. Write code to print out the pay for all of the employees.

# Deleting from an Array

# Array and File Practice

- Assume you have a file containing information about a store's inventory. Each line of the file has a part number, a price, a number on hand, and a number ordered. Write a function to read data from this file into an array of Part objects. We don't know ahead of time how many parts there are, but we will need to know later in the program.