Tuesday, February 27

Warmup - Test review

http://cs.millersville.edu/~ekatz/cs162/notes/test1sample.pdf

similar style to sample test but not the same

closed book, closed notes, closed neighbor

I will provide paper

#2. Special desserts impress and tempt me

#3. System.arraycopy(A, 3, B, 0, 5);

#5.
// returns the sum of the values in field
public static int sumElements(int[][] field) {
    int sum = 0;
    for (int i = 0; i < field.length; i++) { // for each row
        for (int j = 0; j < field[0].length; j++) { // for each column
            sum += field[i][j];
        }
    }
    return sum;
}

#6. Bag contains the six values 12, 42, 5, 8, 29, and 56 in an unordered way.
Sequence contains 42 5 8 29 12 56 in that order with 8 being the current value.

Sequence has order and a current item while Bag is unordered.

Bag

8
29
56
12

Sequence

42 5 8 29 12 56

Sequence in a partially filled array has an array named data that contains the elements in order starting at data[0] to data[manyItems-1]. manyItems is the number of items in the sequence. currentIndex is the index of the current item if there is one and manyItems if there is no current item.
#7.
public class Goal {
    private int pT, gT, nT, p, g, n;
    public Goal(int pT0, int gT0, int nT0) {
        if (pT0 >= 0 && gT0 >= 0 && nT0 >= 0 && (pT0+gT0+nT0 == 10)) {
            pT = pT0;
            nT = nT0;
            gT = gT0;
            p = 0;
            g = 0;
            n = 0;
        } else {
            throw new IllegalArgumentException
            ("Targets cannot be negative and must total to 10 but are 
            + pT0 + " + gT0 + " + nT0);  
        }
    }
    public boolean hasReachedGoal() {
        if ( (p >= pT) && (g >= gT) && (n >= nT) ) {
            return true;
        } else {
            return false;
        }
    }
    public void addPurple() {
        p++;
    }
}

#8.
a. To instantiate/create a new Record object with its own copy of instance variables
b. To stop the program when it illegally attempts to divide by zero
c. 1
d. Nothing. It’s a primitive type parameter. Changing it doesn’t change the original.
e. games is a private instance variable in a different class. The Game class cannot change it directly.
   It would need to use a method provided by the Record class.
#9  Papers 100%
    Scissors 0%
    Papers 20%
    Scissors 60%
#10
a. games is the number of games played. It is the sum of wins, losses, and ties.
b. public int numWins()
c. The Record class would need to have accessor methods such as numWins, numLosses, and 
   numTies to provide the values because they are private instance variables. I would pass in
   the Record as a parameter.
Current assignment - Sequence with Array
  Due next Monday

Next assignment - SortedList
  Linked lists and JUnit
  Insert values in a linked list
  Meet in Linux Lab next Tuesday - March 6
  I will email link to assignment by Monday - don’t worry about it now
  Will be due March 26 (?) - not immediately after Spring Break

Linked Lists
  LinkedStart example