Mehran Sahami Handout #10A
CS 106A October 3, 2007

Solutions for Section #1

Based on a handout by Eric Roberts

```
/*
 * File: VoteCountingKarel.java
 * ----------------------------
 * The VoteCountingKarel subclass cleans out the chad from
 * a ballot as described in the section handout.
 */

import stanford.karel.*;

public class VoteCountingKarel extends SuperKarel {

   public void run() {
      while (frontIsClear()) {
         move();
         if (noBeepersPresent()) {
            removeChad();
         }
         move();
      }
   }

/**
 * Removes any chad from a ballot, which consists of beepers
 * in the squares to right and left of Karel's current position.
 */
   private void removeChad() {
      turnRight();
      checkPunchCorner();
      checkPunchCorner();
      turnLeft();
   }

/**
 * Removes any chad from the corner in front of Karel.  The
 * precondition is that Karel is facing one of the corners
 * that represents a punch hole in a ballot; the postcondition
 * is that Karel is on the same square but facing in the
 * opposite direction since it has just come out of the hole.
 */
   private void checkPunchCorner() {
      move();
      while (beepersPresent()) {
         pickBeeper();
      }
      turnAround();
      move();
   }
}
```