Instance Variables in ScoreSheet.java:

* name:String, Stores the name for that ScoreSheet
* isAcesFull
* isTwosFull
* isThreesFull
* isFoursFull
* isFivesFull
* isSixesFull
* is3ofKindFull
* is4ofKindFull
* isFullHouseFull
* isSmStraightFull
* isLgStraightFull
* isYahtzeeFull
* isChanceFull

The above variables are all booleans that store whether or not the corresponding category has been filled(i.e. isAcesFull checks to see if the ace category has been filled)

* upperScore:int that stores the total upper category score
* lowerScore:int that stores the total bottom category score
* aceScore
* twoScore
* threeScore
* fourScore
* fiveScore
* sixScore
* threeOfKindScore
* fourOfKindScore
* fullHouseScore
* smStraightScore
* lgStraightScore
* yahtzeeScore
* chanceScore

aceScore through chanceScore are all ints that store the amount of points that the corresponding categories were scored for.

Methods in ScoreSheet.java:

* Contructor- gets the players name and sets it to the name variable
* Score method
  + Returns void
  + Prompts the user to pick which category to score in
* toString method
  + Returns a string
  + Returns the ScoreSheet when the ScoreSheet object is printed
* isTwoOfKind method
  + Returns a boolean
  + Checks if there are exactly two of the same type of dice in the array
* isThreeOfKind method
  + Returns a boolean
  + Checks if there are three or more of the same type of dice in the array
* isFourOfKind method
  + Returns a boolean
  + Checks if there are four or more of the same type of dice in the array
* isYahtzee method
  + Returns a boolean
  + Checks if there are 5 of the same type of dice in the array
* isFullHouse method
  + Returns a boolean
  + Checks if there is a 2 of a kind and a three of a kind in the array(This is the reason the isTwoOfKind method checks for exactly 2 dice of the same type)
* isLgStraight method
  + Returns a boolean
  + Checks if there are 5 dice is ascending order
* isSmStraight method
  + Returns a boolean
  + Checks if there are 4 dice in ascending order
* countOnes-countSixes methods
  + Returns an int
  + Counts the amount of each type of dice there are(countOnes counts all of the aces in the dice array)
* sumOfDice method
  + Returns an int
  + Adds up all the dice in the dice array
* check3OfKind method
  + Returns an int
  + First checks if the dice array contains a 3 of a kind
  + Then returns the score that would be returned if the player chooses to score in the 3 of a kind category
* check4OfKind method
  + Returns an int
  + First checks if the dice array contains a 4 of a kind
  + Then returns the score that would be returned if the player chooses to score in the 4 of a kind category
* checkFullHouse method
  + Returns an int
  + First checks if the dice array contains a full house
  + Then returns the score that would be returned if the player chooses to score in the full house category
* checkSmStraight method
  + Returns an int
  + First checks if the dice array contains a small straight
  + Then returns the score that would be returned if the player chooses to score in the small straight category
* checkLgStraight method
  + Returns an int
  + First checks if the dice array contains a large straight
  + Then returns the score that would be returned if the player chooses to score in the large straight category
* checkYahtzee method
  + Returns an int
  + First checks if the dice array contains a Yahtzee
  + Then returns the score that would be returned if the player chooses to score in the Yahtzee category
* addUpper method
  + Returns an int
  + Adds up the total of all of the upper category scoring boxes
  + Adds 35 to this total if the upper category score exceeds 63
  + Returns upperScore
* addLower method
  + Returns an int
  + Adds up the total of all the lower category scoring boxes
  + Returns lowerScore
* totalScore method
  + Returns an int
  + Adds up the upper and lower category scores together and returns the final score for the player

Instance variables in dice.java:

* dice: an integer array that stores the states of all of the dice

Methods in dice.java:

* Constructor-serves only to instantiate the dice object
* rollDice method
  + Returns an int
  + Takes an individual die passed to it and randomises it any integer from 1 - 6
* getDice method
  + Returns an integer array
  + Gets the dice array
* checkIfReroll method
  + Returns void
  + Asks the player if they would like to roll again
  + Calls the selectDiceToRoll method if the player chooses yes and does nothing if the player chooses no
* selectDiceToRoll method
  + Returns void
  + Prompts user for the number of dice to reroll and for which dice to roll again

Instance variables in main:

names: A String array that holds all the names of the players

Process in the main:

Prompt the user for the number of players

Prompt the user for the names of each player

Instantiate a ScoreSheet for each player

Roll the dice for player one

Return the dice array

Prompt the player twice to roll again with the dice array being printed each time

Prompt the player to score in whichever category they choose

Print the scoresheet and repeat for each player from the dice roll

Repeat the previous step 13 times to fill out all of the ScoreSheets

Print the final ScoreSheets and final scores for each player

Declare the winner of the game