DUPLICATE FILES

Step 1: Start

Step 2: READ files.in

Step 3: IF file do not exist, DISPLAY error message

Step 4: ELSE READ the first line of files.in and store as integer

Step 5: SET first line to a variable T

Step 6: SET i to 0

Step 7: FOR i not greater than T, READ subsequent lines of files.in

Step 8: increment i

Step 9; DECLARE variable to store each line

Step 10: IF single line can be converted to integer, SET single line to "group"

Step 11: DECLARE a variable to store previous name and previous ID; prevName and prevID

Step 12: FOR each group, READ subsequent lines of files.in

Step 13: separate each string in line by name and number

Step 14: SET each number in a line to specify ID for that current name

Step 15: IF prevName is the same as current name

Step 16: IF prevID is greater than ID

Step 17: SET prevID to ID

Step 18: ELSE IF prevName is not the same as current name, reset prevName to current name

Step 19: DISPLAY prevID

Step 20: End

SELF DESCRIBING NUMBERS

Step 1: Start

Step 2: READ self.in

Step 3: IF file do not exist, DISPLAY error message

Step 4: ELSE READ the first line of files.in and store as integer

Step 5: SET first line to a variable T

Step 6: SET i to 0

Step 7: FOR i not greater than T, READ subsequent lines of self.in

Step 8: increment i

Step 9: DECLARE variable to store each line

Step 10: get the length of letters in line

Step 11: FOR the length of letters in line

Step 12: DECLARE a variable, count

Step 12: DECLARE another variable numOfOccurence

Step 13: FOR each number, increment its count

Step 14: SET numberOfOccurences to number position

Step 15: IF count is equal to numberOfOccurences, DISPLAY Self describing

Step 16: ELSE DISPAY not self describing

Step 17: End