323-34 Project 4: Huffman Coding

Java++

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Project Due Date: 3/21/2021

Algorithm's Steps:

1. Create a treeNode, linkedList, and binaryTree classes with the correct constructors.

2. Create methods for printing the lists and nodes.

3. Make sure to have a dummy node that points to the headNode of the linked list.

4. Have an insert node method that finds where to place nodes based on the frequency of

each node in ascending order.

5. The binary tree should be able to sort all characters into an array. Using printCountary,

the characters and the frequency of each character should also be printed.

6. Next we need to construct the HuffmanList from a file. Each character should be added

into the linkedlist one by one in order of their frequency.

7. Next we need to make it into a binary tree. We do this by concatenating two strings at a

time based of their frequency and putting them back into the lists based on their

frequency.

8. In short, all the strings should be concatenating into themselves until one string is left.

9. Next we started ordering the strings in post, pre, and in order traversal. We do this

recursively by going through the child notes of each leaf.

10. Lastly we are going into the user interface that allows users to add as many texts as they

want. In this method, we encode the text into 0's and 0's where it is then decoded back

into their original texts.

## **Source Code:**

```
import java.util.*;
import java.io.*;
public class HuffmanCoding{
       public static class treeNode{
               String chStr;
               int frequency;
               String code;
               treeNode left;
               treeNode right;
               treeNode next;
               public treeNode(){
                       chStr = "dummy";
                       frequency = -999;
                       code = "";
                       left = null;
                       right = null;
                       next = null;
               }
               public treeNode(String chStr, int prob, String code, treeNode left, treeNode right,
treeNode next){
                       this.chStr = chStr;
                       this.frequency = prob;
                       this.code = code;
                       this.left = left;
                       this.right = right;
                       this.next = next;
               }
               public void printNode(treeNode T, BufferedWriter outFile)throws IOException{
                       if(T.right == null || T.left == null) {
                              if (T.chStr == "dummy") outFile.write("chStr = "+ T.chStr + " " +
", Frequency = " + T.frequency + ", Code = " + T.code + ", Next chStr = " + T.next.chStr + ",
Left chStr = null " + ", Right chStr = null " + ".\n");
```

```
else if (T.next == null) outFile.write("chStr = "+ T.chStr + " " + ",
Frequency = " + T.frequency + ", Code = " + T.code + ", Next chStr = null" + ", Left chStr = null"
+ ", Right chStr = null" + ".\n");
                              else outFile.write("chStr = "+ T.chStr + " " + ", Frequency = " +
T.frequency + ", Code = " + T.code + ", Next chStr = " + T.next.chStr + ", Left chStr = null" + ",
Right chStr = null'' + ".\n");
                      else {
                              if (T.chStr == "dummy") outFile.write("chStr = "+ T.chStr + " " +
", Frequency = " + T.frequency + ", Code = " + T.code + ", Next chStr = " + T.next.chStr + ",
Left chStr = null " + ", Right chStr = null " + ".\n");
                              else if (T.next == null) outFile.write("chStr = "+ T.chStr + " " + ",
Frequency = " + T.frequency + ", Code = " + T.code + ", Next chStr = null"+ ", Left chStr = " +
T.left.chStr + ", Right chStr = null" + ".\n");
                              else outFile.write("chStr = "+ T.chStr + " " + ", Frequency = " +
T.frequency + ", Code = " + T.code + ", Next chStr = " + T.next.chStr + ", Left chStr = " +
T.left.chStr + ", Right chStr = " + T.right.chStr + ".\n");
       }
       public static class linkedList{
               static treeNode listHead;
               public linkedList(){
                      listHead = new treeNode();
                      treeNode dummy = new treeNode("dummy", -999, "",null,null,null);
                      listHead = dummy;
                      dummy.frequency = -999;
                      dummy.left = null;
               }
               public static treeNode findSpot(treeNode newNode){
                      treeNode spot = listHead;
                      while(spot.next != null){
                              if(spot.next != null && spot.next.frequency < newNode.frequency)
                                      spot = spot.next;
                              else
                                      return spot;
                       }
```

```
return spot;
              }
              public static void insert(treeNode spot,treeNode newNode){
                      newNode.next = spot.next;
                      spot.next = newNode;
              }
              public static void insertNewNode(treeNode listHead,treeNode newNode){
                      treeNode spot = findSpot(newNode);
                      insert(spot,newNode);
              }
              public static void printList(treeNode listHead, BufferedWriter outFile)throws
IOException {
                      treeNode temp = listHead;
                      outFile.write("ListHead --> ");
                      while(temp.next != null) {
                             temp.printNode(temp, outFile);
                             temp = temp.next;
                      temp.printNode(temp, outFile);
                      outFile.write("\r");
       }
       public static class BinaryTree {
              static treeNode Root = new treeNode();
              static int[] charCountAry = new int[256];
              static String[] charCode = new String[256];
              public BinaryTree(){
                      Root = new treeNode();
              }
              public BinaryTree(treeNode listHead){
                      Root = listHead;
              }
```

```
public static boolean isLeaf(treeNode node){
                      if(node.left == null && node.right == null)
                             return true;
                      else
                             return false;
               }
              public static void preOrderTraversal(treeNode Root, BufferedWriter
outFile)throws IOException{
                      if (isLeaf(Root)) Root.printNode(Root, outFile);
                      else {
                             Root.printNode(Root, outFile);
                             preOrderTraversal(Root.left, outFile);
                             preOrderTraversal(Root.right, outFile);
                      }
              public static void postOrderTraversal(treeNode Root, BufferedWriter
outFile)throws IOException{
                      if (isLeaf(Root)) Root.printNode(Root, outFile);
                      else {
                             postOrderTraversal(Root.left, outFile);
                             postOrderTraversal(Root.right, outFile);
                             Root.printNode(Root, outFile);
                      }
              public static void inOrderTraversal(treeNode Root, BufferedWriter outFile)throws
IOException {
                      if (isLeaf(Root)) Root.printNode(Root, outFile);
                      else {
                             inOrderTraversal(Root.left, outFile);
                             Root.printNode(Root, outFile);
                             inOrderTraversal(Root.right, outFile);
                      }
              public static void computeCharCounts (Scanner inFile, int [] charCountAry) {
                      int index = 0;
                      while (inFile.hasNext()){
                             String nextline = inFile.nextLine();
```

```
for(int i = 0; i < nextline.length(); i++){
                                     index = (int) nextline.charAt(i);
                                     if(index >= 0 \&\& index <= 255)
                                             charCountAry[index] ++;
                              }
                      }
              public static void printCountAry (int [] charCountAry, BufferedWriter outFile)
throws IOException {
                      for(int i = 0; i < charCountAry.length; <math>i++)
                             if(charCountAry[i] > 0){
                                     outFile.write((char)i + "\t" + charCountAry[i] + "\r");
                              }
                      outFile.write("\r\n");
               }
              public static void constructHuffmanLList (int [] charCountAry, BufferedWriter
outFile) throws IOException {
                      int index = 0;
                      while (index \leq 256) {
                              if (charCountAry[index] > 0) {
                                     String chr = Character.toString((char)(index));
                                     int prob = charCountAry[index];
                                     treeNode newNode = new treeNode(chr,prob, "", null, null,
null);
                                     linkedList.insertNewNode(linkedList.listHead, newNode);
                                     linkedList.printList(linkedList.listHead, outFile);
                              index++;
                      Root = linkedList.listHead;
              public static void constructHuffmanBinTree (treeNode listHead, BufferedWriter
outFile) throws IOException {
```

```
outFile.write("\r\r\r\r");
                      while(listHead.next.next!= null){
                              treeNode newNode = new treeNode();
                              newNode.frequency = listHead.next.frequency +
listHead.next.next.frequency;
                              newNode.chStr = listHead.next.chStr + listHead.next.next.chStr;
                              newNode.left = listHead.next;
                              newNode.right = listHead.next.next;
                              newNode.next = null;
                              linkedList.insertNewNode(listHead, newNode);
                              linkedList.listHead.next = listHead.next.next.next;
                              linkedList.printList(listHead, outFile);
                      Root = linkedList.listHead.next;
              public static void Encode (Scanner orgFile, File outFile) throws IOException {
                      FileWriter outFile2 = new FileWriter(outFile);
                      char charIn;
                      String lineIn = orgFile.nextLine();
                      int index;
                      String code;
                      while (orgFile.hasNextLine()) {
                              for (int i = 0; i < lineIn.length(); i++) {
                                     charIn = lineIn.charAt(i);
                                     index = (int)charIn;
                                     code = charCode[index];
                                     outFile2.write(code);
                              lineIn = orgFile.nextLine();
                      for (int i = 0; i < lineIn.length(); i++) {
                              charIn = lineIn.charAt(i);
                              index = (int)charIn;
                              code = charCode[index];
                              outFile2.write(code);
                      outFile2.close();
```

```
public static void Decode (File inFile, BufferedWriter outFile) throws
IOException {
                      FileReader fileIn=new FileReader(inFile);
                      BufferedReader inFile2=new BufferedReader(fileIn);
                      treeNode spot = new treeNode();
                      int c = 0;
                      char oneBit;
                      spot = Root;
                      while((c = inFile2.read()) != -1) {
                              if (isLeaf(spot)) {
                                     outFile.write(spot.chStr);
                                     spot = Root;
                              oneBit = (char) c;
                              if (oneBit == '0') spot = spot.left;
                              else if (oneBit == '1') spot = spot.right;
                              else {
                                     System.out.println("Error! The compress file contains
invaliud character\n");
                                     System.exit(0);
                              }
                      if (!isLeaf(spot)) System.out.println("Error! The compress file is
corrupted\n");
                      inFile2.close();
              public static void constructCharCode(treeNode T, String code){
                      if(isLeaf(T)){
                              T.code = code;
                              char indexChar = (char)T.chStr.charAt(0);
                              charCode[(int)indexChar] = code;
                      }
                      else{
                              constructCharCode(T.left, code + "0");
                              constructCharCode(T.right, code + "1");
                      }
```

```
public static void userInterface() throws IOException {
                     Scanner input = new Scanner(System.in);
                     String nameOrg = null;
                     String nameCompress;
                     String nameDeCompress;
                     char yesNo = 0;
                     while (yesNo != 'n' || yesNo != 'N') {
                            System.out.println("If you do not want to compress a file, type N.
If not, type anything else.");
                            yesNo = input.next().charAt(0);
                            if(yesNo == 'N' \parallel yesNo == 'n')
                                   System.exit(0);
                            else{
                                    System.out.println("Enter the name of the input file to be
compressed");
                                   nameOrg = input.next();
                            }
                            nameCompress = nameOrg + " Compressed.txt";
                            nameDeCompress = nameOrg + " DeCompress.txt";
                            nameOrg = nameOrg + ".txt";
                            Scanner orgFile = new Scanner(new FileReader(nameOrg));
                            File compFile = new File(nameCompress);
                            BufferedWriter deCompFile = new BufferedWriter(new
FileWriter(nameDeCompress));
                            Encode(orgFile,compFile);
                            File compfile = new File(nameCompress);
                            Scanner newcompFile = new Scanner(compfile);
                            Decode(compfile, deCompFile);
                            orgFile.close();
                            newcompFile.close();
                            deCompFile.close();
```

```
}
       public static void main(String[] args) throws IOException{
              String nameInFile = args[0];
              File file = new File("data.txt");
              Scanner InFile = new Scanner(file);
              String nameDebugFile = nameInFile + " DeBug";
              BufferedWriter DebugFile = new BufferedWriter(new
FileWriter(nameDebugFile));
              String emptyString = "";
              linkedList LinkedList = new linkedList();
              treeNode listHead = LinkedList.listHead;
              BinaryTree BinaryTree = new BinaryTree();
              BinaryTree.computeCharCounts(InFile,BinaryTree.charCountAry);
              BinaryTree.printCountAry(BinaryTree.charCountAry, DebugFile);
              BinaryTree.constructHuffmanLList(BinaryTree.charCountAry, DebugFile);
              BinaryTree.constructHuffmanBinTree(LinkedList.listHead, DebugFile);
              BinaryTree.constructCharCode(BinaryTree.Root, emptyString);
              HuffmanCoding.linkedList.printList(LinkedList.listHead,DebugFile);
              DebugFile.write("Preforming preorder Traversal\n");
              HuffmanCoding.BinaryTree.preOrderTraversal(BinaryTree.Root, DebugFile);
              DebugFile.write("\nPreforming inOrder Traversal\n");
              HuffmanCoding.BinaryTree.inOrderTraversal(BinaryTree.Root, DebugFile);
              DebugFile.write("\nPreforming postOrder Traversal\n");
              HuffmanCoding.BinaryTree.postOrderTraversal(BinaryTree.Root, DebugFile);
              BinaryTree.userInterface();
              InFile.close();
              DebugFile.close();
       }
```

}

## **Program Output:**

## **Input:**

The Old Man and the Sea tells the story of a battle between an aging, experienced fisherman, Santiago, and a large marlin.

The story opens with Santiago having gone 84 days without catching a fish, and now being seen as salao, the worst form of unluckiness.

He is so unlucky that his young apprentice, Manolin,

has been forbidden by his parents to sail with him

and has been told instead to fish with successful fishermen.

The boy visits Santiago's shack each night,

hauling his fishing gear, preparing food,

talking about American baseball and his favorite player,

Joe DiMaggio. Santiago tells Manolin that on the next day,

he will venture far out into the Gulf Stream,

north of Cuba in the Straits of Florida to fish,

confident that his unlucky streak is near its end.

On the eighty-fifth day of his unlucky streak,

Santiago takes his skiff into the Gulf Stream,

sets his lines and by noon, has his bait taken by a big fish

that he is sure is a marlin. Unable to haul in the great marlin,

Santiago is instead pulled by the marlin,

and two days and nights pass with Santiago holding onto the line.

Though wounded by the struggle and in pain,

Santiago expresses a compassionate appreciation for his adversary, often referring to him as a brother.

He also determines that, because of the fish's great dignity,

no one shall deserve to eat the marlin.

On the third day, the fish begins to circle the skiff.

Santiago, worn out and almost delirious,

uses all his remaining strength to pull the fish onto its side and stab the marlin with a harpoon.

Santiago straps the marlin to the side of his skiff and heads home, thinking about the high price the fish will bring him at the market and how many people he will feed.

On his way in to shore, sharks are attracted to the marlin's blood.

Santiago kills a great make shark with his harpoon,

but he loses the weapon.

He makes a new harpoon by strapping his knife

to the end of an oar to help ward off the next line of sharks;

five sharks are slain and many others are driven away.

But the sharks keep coming, and by nightfall

the sharks have almost devoured the marlin's entire carcass,

leaving a skeleton consisting mostly of its backbone, its tail,

and its head. Santiago knows that he is destroyed and

tells the sharks of how they have killed his dreams.

Upon reaching the shore before dawn on the next day,

Santiago struggles to his shack, carrying the heavy mast on his shoulder,

leaving the fish head and the bones on the shore.

Once home, he slumps onto his bed and falls into a deep sleep.

A group of fishermen gather the next day around the boat

where the fish's skeleton is still attached.

One of the fishermen measures it to be 18 feet (5.5 m) from nose to tail.

Pedrico is given the head of the fish,

and the other fishermen tell Manolin to tell the old man how sorry they are.

Tourists at the nearby cafe mistakenly take it for a shark.

Manolin, worried about the old man, cries upon finding him safe asleep and at his injured hands, and brings him newspapers and coffee.

When the old man wakes, they promise to fish together once again.

Upon his return to sleep, Santiago dreams of his youth of lions on an African beach.

## **DebugFile:**

579

5

1

) 1

43

. 1

27

1 1

4 1

5 2

8 2

1

A 3

B 1

C 1

D 1

F 1

G 2

```
Η
        3
J
        1
M
        6
        6
O
P
        1
S
        18
        5
T
        3
U
W
        1
        241
a
        40
b
        38
c
d
        84
e
        270
f
        71
        65
g
        184
h
        196
i
        1
j
        37
k
1
        101
        49
m
        199
n
        171
\mathbf{o}
        40
p
        126
r
        191
S
        220
t
        46
u
        15
\mathbf{v}
\mathbf{W}
        30
        6
\mathbf{X}
        40
```

y

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr =, Left chStr = null, Right chStr = null.

chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.

 $ListHead --> chStr = dummy \;, \; Frequency = -999, \; Code = \;, \; Next \; chStr = ', \; Left \; chStr = null \;, \;$ Right chStr = null.

```
chStr = ', Frequency = 5, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = (, Left chStr = null,
Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = ), Left chStr = null,
Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = ), Left chStr = null,
Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = -, Left chStr = null,
Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = -, Left chStr = null,
Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
```

```
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = 1, Left chStr = null,
Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = 4, Left chStr = null,
Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = . , Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = 4, Left chStr = null,
Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

```
Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code =, Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code =, Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = ;, Left chStr = null,
Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code =, Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = ;, Left chStr = null,
Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code =, Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = 4, Left chStr = null,

```
chStr = ', Frequency = 5, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = . , Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = B, Left chStr = null,
Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code =, Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = . , Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = C, Left chStr = null,
Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code =, Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

```
Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code =, Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = F, Left chStr = null,
Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code =, Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = D, Left chStr = null,

```
Right chStr = null.
chStr = F, Frequency = 1, Code = Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ;, Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code =, Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = F, Left chStr = null,
Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = F, Left chStr = null,

```
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = J, Left chStr = null,
Right chStr = null.
chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code =, Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = J, Left chStr = null,
Right chStr = null.
chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
```

```
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code =, Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = J, Left chStr = null,
Right chStr = null.
chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = P, Left chStr = null,
Right chStr = null.
chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.
chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
```

```
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = Next chStr = Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code =, Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code =, Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = P, Left chStr = null,
Right chStr = null.
chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.
chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code =, Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
```

```
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null,
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = P, Left chStr = null,
Right chStr = null.
chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.
chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code =, Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = P, Left chStr = null,
Right chStr = null.
```

chStr = P, Frequency = 1, Code =, Next chStr = J, Left chStr = null, Right chStr = null. chStr = J, Frequency = 1, Code =, Next chStr = F, Left chStr = null, Right chStr = null.

```
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ;, Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code =, Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code =, Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = W, Left chStr = null,
Right chStr = null.
chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null.
chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.
chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null.
```

chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.

```
chStr = G , Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null. chStr = 8 , Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null. chStr = 5 , Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null. chStr = U , Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null. chStr = H , Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null. chStr = A , Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null. chStr = T , Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null. chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null. chStr = O , Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null. chStr = M , Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null. chStr = S , Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null. chStr = ., Frequency = 27, Code = , Next chStr = ., Left chStr = null, Right chStr = null. chStr = , Frequency = 43, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = , Frequency = 579, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = W, Left chStr = null, Right chStr = null. chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null. chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null. chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null. chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null. chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null. chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null. chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null. chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null. chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null. chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null. chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null. chStr = (, Frequency = 1, Code =, Next chStr = G, Left chStr = null, Right chStr = null. chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null. chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null. chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null. chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null. chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null. chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null. chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null. chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null. chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null. chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null.

```
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = . , Frequency = 27, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = . . Frequency = 43. Code = . Next chStr = a. Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr =, Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = W, Left chStr = null,
Right chStr = null.
chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null.
chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.
chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code =, Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = W, Left chStr = null, Right chStr = null.

```
chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null.
chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.
chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr =, Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy , Frequency = -999, Code = , Next chStr = W, Left chStr = null , Right chStr = null .

chStr = W , Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null.

chStr = P , Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.

chStr = J , Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.

chStr = F , Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.

chStr = D , Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.

chStr = C , Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.

chStr = B , Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.

```
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy , Frequency = -999, Code = , Next chStr = W, Left chStr = null , Right chStr = null .

chStr = W , Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null.

chStr = P , Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.

chStr = J , Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.

chStr = F , Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.

chStr = D , Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.

chStr = C , Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.

chStr = B , Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.

chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.

chStr = 4 , Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.

chStr = 1 , Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.

chStr = - , Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.

chStr = - , Frequency = 1, Code = , Next chStr = ), Left chStr = null, Right chStr = null.

chStr = - , Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.

chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null.

```
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = W, Left chStr = null,
Right chStr = null.
```

chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null. chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null. chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null. chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null. chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null. chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null. chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null. chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null. chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null. chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null. chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null. chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null. chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null. chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null. chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null. chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null. chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.

```
chStr = A , Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null. chStr = T , Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null. chStr = ' , Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null. chStr = O , Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null. chStr = M , Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null. chStr = S , Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null. chStr = . , Frequency = 27, Code = , Next chStr = c, Left chStr = null, Right chStr = null. chStr = c , Frequency = 38, Code = , Next chStr = b, Left chStr = null, Right chStr = null. chStr = b , Frequency = 40, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = , , Frequency = 43, Code = , Next chStr = f, Left chStr = null, Right chStr = null. chStr = f , Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null. chStr = d , Frequency = 84, Code = , Next chStr = a, Left chStr = null, Right chStr = null. chStr = a , Frequency = 241, Code = , Next chStr = e, Left chStr = null, Right chStr = null. chStr = a, Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = e, Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = W, Left chStr = null, Right chStr = null. chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null. chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null. chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null. chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null. chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null. chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null. chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null. chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null. chStr = 4, Frequency = 1, Code =, Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null. chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null. chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null. chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null. chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null. chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null. chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null. chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null. chStr = H, Frequency = 3, Code =, Next chStr = A, Left chStr = null, Right chStr = null. chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null. chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null. chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null. chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.

```
chStr = M , Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null. chStr = S , Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null. chStr = . , Frequency = 27, Code = , Next chStr = c, Left chStr = null, Right chStr = null. chStr = c , Frequency = 38, Code = , Next chStr = b, Left chStr = null, Right chStr = null. chStr = b , Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null. chStr = , , Frequency = 43, Code = , Next chStr = g, Left chStr = null, Right chStr = null. chStr = g , Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null. chStr = f , Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null. chStr = d , Frequency = 84, Code = , Next chStr = a, Left chStr = null, Right chStr = null. chStr = a , Frequency = 241, Code = , Next chStr = e, Left chStr = null, Right chStr = null. chStr = e , Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = W, Left chStr = null, Right chStr = null. chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null. chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null. chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null. chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null. chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null. chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null. chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null. chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null. chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null. chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null. chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null. chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null. chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null. chStr = 8, Frequency = 2, Code =, Next chStr = 5, Left chStr = null, Right chStr = null. chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null. chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null. chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null. chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null. chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null. chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null. chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null. chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null. chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null. chStr = ., Frequency = 27, Code = , Next chStr = c, Left chStr = null, Right chStr = null.

```
chStr = c , Frequency = 38, Code = , Next chStr = b, Left chStr = null, Right chStr = null. chStr = b , Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null. chStr = , Frequency = 43, Code = , Next chStr = g, Left chStr = null, Right chStr = null. chStr = g , Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null. chStr = f , Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null. chStr = d , Frequency = 84, Code = , Next chStr = h, Left chStr = null, Right chStr = null. chStr = h , Frequency = 184, Code = , Next chStr = a, Left chStr = null, Right chStr = null. chStr = a , Frequency = 241, Code = , Next chStr = e, Left chStr = null, Right chStr = null. chStr = e , Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = W, Left chStr = null, Right chStr = null. chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null. chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null. chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null. chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null. chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null. chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null. chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null. chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null. chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null. chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null. chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null. chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null. chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null. chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null. chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null. chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null. chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null. chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null. chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null. chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null. chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null. chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null. chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null. chStr = . , Frequency = 27, Code = , Next chStr = c, Left chStr = null, Right chStr = null. chStr = c, Frequency = 38, Code = , Next chStr = b, Left chStr = null, Right chStr = null. chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.

```
chStr = , , Frequency = 43, Code = , Next chStr = g, Left chStr = null, Right chStr = null. chStr = g , Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null. chStr = f , Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null. chStr = d , Frequency = 84, Code = , Next chStr = h, Left chStr = null, Right chStr = null. chStr = h , Frequency = 184, Code = , Next chStr = i, Left chStr = null, Right chStr = null. chStr = i , Frequency = 196, Code = , Next chStr = a, Left chStr = null, Right chStr = null. chStr = a , Frequency = 241, Code = , Next chStr = e, Left chStr = null, Right chStr = null. chStr = e , Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = j, Left chStr = null, Right chStr = null. chStr = j, Frequency = 1, Code = , Next chStr = W, Left chStr = null, Right chStr = null. chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null. chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null. chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null. chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null. chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null. chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null. chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null. chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null. chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null. chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null. chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null. chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null. chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null. chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null. chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null. chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null. chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null. chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null. chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null. chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null. chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null. chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null. chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null. chStr = . , Frequency = 27, Code = , Next chStr = c, Left chStr = null, Right chStr = null. chStr = c, Frequency = 38, Code = , Next chStr = b, Left chStr = null, Right chStr = null. chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.

```
chStr = , , Frequency = 43, Code = , Next chStr = g, Left chStr = null, Right chStr = null. chStr = g , Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null. chStr = f , Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null. chStr = d , Frequency = 84, Code = , Next chStr = h, Left chStr = null, Right chStr = null. chStr = h , Frequency = 184, Code = , Next chStr = i, Left chStr = null, Right chStr = null. chStr = i , Frequency = 196, Code = , Next chStr = a, Left chStr = null, Right chStr = null. chStr = a , Frequency = 241, Code = , Next chStr = e, Left chStr = null, Right chStr = null. chStr = e , Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = j, Left chStr = null, Right chStr = null. chStr = j, Frequency = 1, Code = , Next chStr = W, Left chStr = null, Right chStr = null. chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null. chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null. chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null. chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null. chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null. chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null. chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null. chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null. chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null. chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null. chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null. chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null. chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null. chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null. chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null. chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null. chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null. chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null. chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null. chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null. chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null. chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null. chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null. chStr = . , Frequency = 27, Code = , Next chStr = k, Left chStr = null, Right chStr = null. chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null. chStr = c, Frequency = 38, Code = , Next chStr = b, Left chStr = null, Right chStr = null.

```
chStr = b , Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null. chStr = , , Frequency = 43, Code = , Next chStr = g, Left chStr = null, Right chStr = null. chStr = g , Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null. chStr = f , Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null. chStr = d , Frequency = 84, Code = , Next chStr = h, Left chStr = null, Right chStr = null. chStr = h , Frequency = 184, Code = , Next chStr = i, Left chStr = null, Right chStr = null. chStr = i , Frequency = 196, Code = , Next chStr = a, Left chStr = null, Right chStr = null. chStr = a , Frequency = 241, Code = , Next chStr = e, Left chStr = null, Right chStr = null. chStr = e , Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = j, Left chStr = null, Right chStr = null. chStr = j, Frequency = 1, Code = , Next chStr = W, Left chStr = null, Right chStr = null. chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null. chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null. chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null. chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null. chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null. chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null. chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null. chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null. chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null. chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null. chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null. chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null. chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null. chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null. chStr = 5, Frequency = 2, Code =, Next chStr = U, Left chStr = null, Right chStr = null. chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null. chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null. chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null. chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null. chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null. chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null. chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null. chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null. chStr = . , Frequency = 27, Code = , Next chStr = k, Left chStr = null, Right chStr = null. chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.

```
chStr = c , Frequency = 38, Code = , Next chStr = b, Left chStr = null, Right chStr = null. chStr = b , Frequency = 40, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = , Frequency = 43, Code = , Next chStr = g, Left chStr = null, Right chStr = null. chStr = g , Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null. chStr = f , Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null. chStr = d , Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1 , Frequency = 101, Code = , Next chStr = h, Left chStr = null, Right chStr = null. chStr = h , Frequency = 184, Code = , Next chStr = i, Left chStr = null, Right chStr = null. chStr = i , Frequency = 196, Code = , Next chStr = a, Left chStr = null, Right chStr = null. chStr = a , Frequency = 241, Code = , Next chStr = e, Left chStr = null, Right chStr = null. chStr = e , Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = e , Frequency = 579, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
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Right chStr = null. chStr = j, Frequency = 1, Code = , Next chStr = W, Left chStr = null, Right chStr = null. chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null. chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null. chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null. chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null. chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null. chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null. chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null. chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null. chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null. chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null. chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null. chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null. chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null. chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null. chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null. chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null. chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null. chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null. chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null. chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null. chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null. chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null. chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.

```
chStr = . , Frequency = 27, Code = , Next chStr = k, Left chStr = null, Right chStr = null. chStr = k , Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null. chStr = c , Frequency = 38, Code = , Next chStr = b, Left chStr = null, Right chStr = null. chStr = b , Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null. chStr = , , Frequency = 43, Code = , Next chStr = m, Left chStr = null, Right chStr = null. chStr = m , Frequency = 49, Code = , Next chStr = g, Left chStr = null, Right chStr = null. chStr = g , Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null. chStr = f , Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null. chStr = d , Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null. chStr = l , Frequency = 101, Code = , Next chStr = h, Left chStr = null, Right chStr = null. chStr = h , Frequency = 184, Code = , Next chStr = i, Left chStr = null, Right chStr = null. chStr = i , Frequency = 196, Code = , Next chStr = a, Left chStr = null, Right chStr = null. chStr = a , Frequency = 241, Code = , Next chStr = e, Left chStr = null, Right chStr = null. chStr = e , Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = e , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = j, Left chStr = null, Right chStr = null. chStr = j, Frequency = 1, Code = , Next chStr = W, Left chStr = null, Right chStr = null. chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null. chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null. chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null. chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null. chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null. chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null. chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null. chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null. chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null. chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null. chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null. chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null. chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null. chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null. chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null. chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null. chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null. chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null. chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null. chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.

```
chStr = O, Frequency = 6, Code = Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ... Left chStr = null, Right chStr = null.
chStr = . , Frequency = 27, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = j, Left chStr = null, Right chStr = null. chStr = j, Frequency = 1, Code = , Next chStr = W, Left chStr = null, Right chStr = null. chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null. chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null. chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null. chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null. chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null. chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null. chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null. chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null. chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null. chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null. chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null. chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null. chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null. chStr = 8, Frequency = 2, Code =, Next chStr = 5, Left chStr = null, Right chStr = null. chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null. chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.

```
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code = , Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = j, Left chStr = null,
Right chStr = null.
chStr = j, Frequency = 1, Code = , Next chStr = W, Left chStr = null, Right chStr = null.
chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null.
chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.
chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
```

chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null. chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null. chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null. chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null. chStr = ;, Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null. chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null. chStr = -, Frequency = 1, Code = , Next chStr = ), Left chStr = null, Right chStr = null. chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.

```
chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code =, Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = . , Frequency = 27, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code = , Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy , Frequency = -999, Code = , Next chStr = j, Left chStr = null , Right chStr = null .

chStr = j , Frequency = 1, Code = , Next chStr = W, Left chStr = null, Right chStr = null.

chStr = W , Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null.

chStr = P , Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.

chStr = J , Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.

chStr = F , Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.

chStr = D , Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.

chStr = C , Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.

```
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code =, Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code =, Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code =, Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = . , Frequency = 27, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code =, Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = j, Left chStr = null, Right chStr = null.

```
chStr = j, Frequency = 1, Code = , Next chStr = W, Left chStr = null, Right chStr = null.
chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null.
chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.
chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code =, Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
```

```
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code = , Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = j, Left chStr = null,
Right chStr = null.
chStr = j, Frequency = 1, Code = , Next chStr = W, Left chStr = null, Right chStr = null.
chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null.
chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.
chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code =, Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
```

chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.

```
chStr = g , Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null. chStr = f , Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null. chStr = d , Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null. chStr = l , Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null. chStr = r , Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null. chStr = o , Frequency = 171, Code = , Next chStr = h, Left chStr = null, Right chStr = null. chStr = h , Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null. chStr = s , Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null. chStr = i , Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null. chStr = n , Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null. chStr = t , Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null. chStr = a , Frequency = 241, Code = , Next chStr = e, Left chStr = null, Right chStr = null. chStr = e , Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = e , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = j, Left chStr = null, Right chStr = null. chStr = j, Frequency = 1, Code = , Next chStr = W, Left chStr = null, Right chStr = null. chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null. chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null. chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null. chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null. chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null. chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null. chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null. chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null. chStr = 4, Frequency = 1, Code =, Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null. chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null. chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null. chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null. chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null. chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null. chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null. chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null. chStr = H, Frequency = 3, Code =, Next chStr = A, Left chStr = null, Right chStr = null. chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null. chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null. chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null. chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.

```
chStr = M, Frequency = 6, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = . . Frequency = 27, Code = . Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code =, Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code =, Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code = , Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy , Frequency = -999, Code = , Next chStr = j, Left chStr = null , Right chStr = null .

chStr = j , Frequency = 1, Code = , Next chStr = W, Left chStr = null, Right chStr = null.

chStr = W , Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null.

chStr = P , Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.

chStr = J , Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.

chStr = F , Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.

chStr = D , Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.

chStr = C , Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.

chStr = B , Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.

chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.

chStr = 4 , Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.

chStr = 1 , Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.

chStr = - , Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.

```
chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code =, Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = j, Left chStr = null, Right chStr = null.

chStr = j, Frequency = 1, Code = , Next chStr = W, Left chStr = null, Right chStr = null. chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null.

```
chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.
chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code =, Next chStr = G, Left chStr = null, Right chStr = null.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
```

```
chStr = s , Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null. chStr = i , Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null. chStr = n , Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null. chStr = t , Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null. chStr = a , Frequency = 241, Code = , Next chStr = e, Left chStr = null, Right chStr = null. chStr = e , Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = j, Left chStr = null, Right chStr = null. chStr = j, Frequency = 1, Code = , Next chStr = W, Left chStr = null, Right chStr = null. chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null. chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null. chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null. chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null. chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null. chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null. chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null. chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null. chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null. chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null. chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null. chStr = (, Frequency = 1, Code = , Next chStr = G, Left chStr = null, Right chStr = null. chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null. chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null. chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null. chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null. chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null. chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null. chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null. chStr = ', Frequency = 5, Code = , Next chStr = x, Left chStr = null, Right chStr = null. chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null. chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null. chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null. chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null. chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null. chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null. chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null. chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.

```
chStr = c, Frequency = 38, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code =, Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = j, Left chStr = null,
Right chStr = null.
chStr = j, Frequency = 1, Code = , Next chStr = W, Left chStr = null, Right chStr = null.
chStr = W, Frequency = 1, Code = , Next chStr = P, Left chStr = null, Right chStr = null.
chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.
chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
```

chStr = (, Frequency = 1, Code =, Next chStr = G, Left chStr = null, Right chStr = null. chStr = G, Frequency = 2, Code =, Next chStr = 8, Left chStr = null, Right chStr = null. chStr = 8, Frequency = 2, Code =, Next chStr = 5, Left chStr = null, Right chStr = null. chStr = 5, Frequency = 2, Code =, Next chStr = U, Left chStr = null, Right chStr = null.

```
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code =, Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = x, Left chStr = null, Right chStr = null.
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

```
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = P, Left chStr = null,
Right chStr = null.
chStr = P, Frequency = 1, Code = , Next chStr = J, Left chStr = null, Right chStr = null.
chStr = J, Frequency = 1, Code = , Next chStr = F, Left chStr = null, Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = jW, Left chStr = null, Right chStr = null.
chStr = jW, Frequency = 2, Code = , Next chStr = G, Left chStr = j, Right chStr = W.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = x, Left chStr = null, Right chStr = null.
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
```

```
chStr = d, Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = F, Left chStr = null,
Right chStr = null.
chStr = F, Frequency = 1, Code = , Next chStr = D, Left chStr = null, Right chStr = null.
chStr = D, Frequency = 1, Code = , Next chStr = C, Left chStr = null, Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
```

```
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = PJ, Left chStr = null, Right chStr = null.
chStr = PJ, Frequency = 2, Code = , Next chStr = jW, Left chStr = P, Right chStr = J.
chStr = jW, Frequency = 2, Code = , Next chStr = G, Left chStr = j, Right chStr = W.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code =, Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = x, Left chStr = null, Right chStr = null.
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
```

```
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code =, Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code = , Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = C, Left chStr = null,
Right chStr = null.
chStr = C, Frequency = 1, Code = , Next chStr = B, Left chStr = null, Right chStr = null.
chStr = B, Frequency = 1, Code = , Next chStr = ;, Left chStr = null, Right chStr = null.
chStr = ; , Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null.
chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = FD, Left chStr = null, Right chStr = null.
chStr = FD, Frequency = 2, Code = , Next chStr = PJ, Left chStr = F, Right chStr = D.
chStr = PJ, Frequency = 2, Code = , Next chStr = jW, Left chStr = P, Right chStr = J.
chStr = jW, Frequency = 2, Code = , Next chStr = G, Left chStr = j, Right chStr = W.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
```

chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.

```
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code =, Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = x, Left chStr = null, Right chStr = null.
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

 $\label{eq:listHead} \begin{subarray}{ll} ListHead --> chStr = dummy \ , Frequency = -999, Code = \ , Next \ chStr = \ ;, Left \ chStr = null \ , \\ Right \ chStr = null \ . \\ \end{subarray}$ 

```
chStr = ;, Frequency = 1, Code = , Next chStr = 4, Left chStr = null, Right chStr = null. chStr = 4, Frequency = 1, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
```

```
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null,
chStr = (, Frequency = 1, Code =, Next chStr = CB, Left chStr = null, Right chStr = null.
chStr = CB, Frequency = 2, Code =, Next chStr = FD, Left chStr = C, Right chStr = B.
chStr = FD, Frequency = 2, Code = , Next chStr = PJ, Left chStr = F, Right chStr = D.
chStr = PJ, Frequency = 2, Code = , Next chStr = jW, Left chStr = P, Right chStr = J.
chStr = jW, Frequency = 2, Code = , Next chStr = G, Left chStr = j, Right chStr = W.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code =, Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code =, Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = x, Left chStr = null, Right chStr = null.
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code = , Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
```

```
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code = , Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = 1, Left chStr = null,
Right chStr = null.
chStr = 1, Frequency = 1, Code = , Next chStr = -, Left chStr = null, Right chStr = null.
chStr = -, Frequency = 1, Code =, Next chStr = ), Left chStr = null, Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = ;4, Left chStr = null, Right chStr = null.
chStr = :4, Frequency = 2, Code = , Next chStr = CB, Left chStr = :, Right chStr = 4.
chStr = CB, Frequency = 2, Code = , Next chStr = FD, Left chStr = C, Right chStr = B.
chStr = FD, Frequency = 2, Code = , Next chStr = PJ, Left chStr = F, Right chStr = D.
chStr = PJ, Frequency = 2, Code = , Next chStr = jW, Left chStr = P, Right chStr = J.
chStr = jW, Frequency = 2, Code = , Next chStr = G, Left chStr = j, Right chStr = W.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code =, Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code =, Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = x, Left chStr = null, Right chStr = null.
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
```

```
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code =, Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code =, Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = ), Left chStr = null,
Right chStr = null.
chStr = ), Frequency = 1, Code = , Next chStr = (, Left chStr = null, Right chStr = null.
chStr = (, Frequency = 1, Code = , Next chStr = 1-, Left chStr = null, Right chStr = null.
chStr = 1-, Frequency = 2, Code = , Next chStr = ;4, Left chStr = 1, Right chStr = -.
```

```
chStr = :4, Frequency = 2, Code = , Next chStr = CB, Left chStr = :, Right chStr = 4.
chStr = CB, Frequency = 2, Code = , Next chStr = FD, Left chStr = C, Right chStr = B.
chStr = FD, Frequency = 2, Code = , Next chStr = PJ, Left chStr = F, Right chStr = D.
chStr = PJ, Frequency = 2, Code = , Next chStr = jW, Left chStr = P, Right chStr = J.
chStr = jW, Frequency = 2, Code = , Next chStr = G, Left chStr = j, Right chStr = W.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code =, Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = x, Left chStr = null, Right chStr = null.
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
```

```
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code =, Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = )(, Left chStr = null,
Right chStr = null.
chStr = )(, Frequency = 2, Code = , Next chStr = 1-, Left chStr = ), Right chStr = (.
chStr = 1-, Frequency = 2, Code = , Next chStr = ;4, Left chStr = 1, Right chStr = -.
chStr = ;4, Frequency = 2, Code = , Next chStr = CB, Left chStr = ;, Right chStr = 4.
chStr = CB, Frequency = 2, Code =, Next chStr = FD, Left chStr = C, Right chStr = B.
chStr = FD, Frequency = 2, Code = , Next chStr = PJ, Left chStr = F, Right chStr = D.
chStr = PJ, Frequency = 2, Code = , Next chStr = jW, Left chStr = P, Right chStr = J.
chStr = jW, Frequency = 2, Code = , Next chStr = G, Left chStr = j, Right chStr = W.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = T, Left chStr = null, Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = x, Left chStr = null, Right chStr = null.
```

```
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = Next chStr = v, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = ;4, Left chStr = null, Right chStr = null.

chStr = ;4, Frequency = 2, Code = , Next chStr = CB, Left chStr = ;, Right chStr = 4.

chStr = CB, Frequency = 2, Code = , Next chStr = FD, Left chStr = C, Right chStr = B.

chStr = FD, Frequency = 2, Code = , Next chStr = PJ, Left chStr = F, Right chStr = D.

chStr = PJ, Frequency = 2, Code = , Next chStr = jW, Left chStr = P, Right chStr = J.

chStr = jW, Frequency = 2, Code = , Next chStr = G, Left chStr = j, Right chStr = W.

chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.

chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.

```
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code =, Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = )(1-, Left chStr = null, Right chStr = null.
chStr = )(1-, Frequency = 4, Code = , Next chStr = T, Left chStr = )(, Right chStr = 1-.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = x, Left chStr = null, Right chStr = null.
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

$$\label{eq:linear_constraints} \begin{split} & \text{ListHead --> chStr} = \text{dummy , Frequency} = \text{-999, Code} = \text{, Next chStr} = \text{FD, Left chStr} = \text{null ,} \\ & \text{Right chStr} = \text{null .} \\ & \text{chStr} = \text{FD , Frequency} = 2, \text{Code} = \text{, Next chStr} = \text{PJ, Left chStr} = \text{F, Right chStr} = \text{D.} \end{split}$$

chStr = PJ, Frequency = 2, Code = , Next chStr = PJ, Left chStr = P, Right chStr = D. chStr = PJ, Frequency = 2, Code = , Next chStr = jW, Left chStr = P, Right chStr = J.

```
chStr = jW, Frequency = 2, Code = , Next chStr = G, Left chStr = j, Right chStr = W.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = ;4CB, Left chStr = null, Right chStr = null.
chStr = ;4CB, Frequency = 4, Code = , Next chStr = )(1-, Left chStr = ;4, Right chStr = CB.
chStr = )(1-, Frequency = 4, Code = , Next chStr = T, Left chStr = )(, Right chStr = 1-.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = x, Left chStr = null, Right chStr = null.
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code =, Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

```
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = jW, Left chStr = null,
Right chStr = null.
chStr = jW, Frequency = 2, Code = , Next chStr = G, Left chStr = j, Right chStr = W.
chStr = G, Frequency = 2, Code = , Next chStr = 8, Left chStr = null, Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = FDPJ, Left chStr = null, Right chStr = null.
chStr = FDPJ, Frequency = 4, Code = , Next chStr = ;4CB, Left chStr = FD, Right chStr = PJ.
chStr = ;4CB, Frequency = 4, Code = , Next chStr = )(1-, Left chStr = ;4, Right chStr = CB.
chStr = )(1-, Frequency = 4, Code = , Next chStr = T, Left chStr = )(, Right chStr = 1-.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = x, Left chStr = null, Right chStr = null.
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
```

```
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = 8, Left chStr = null,
Right chStr = null.
chStr = 8, Frequency = 2, Code = , Next chStr = 5, Left chStr = null, Right chStr = null.
chStr = 5, Frequency = 2, Code = , Next chStr = U, Left chStr = null, Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code = , Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = jWG, Left chStr = null, Right chStr = null.
chStr = jWG, Frequency = 4, Code = , Next chStr = FDPJ, Left chStr = jW, Right chStr = G.
chStr = FDPJ, Frequency = 4, Code = , Next chStr = ;4CB, Left chStr = FD, Right chStr = PJ.
chStr = ;4CB, Frequency = 4, Code = , Next chStr = )(1-, Left chStr = ;4, Right chStr = CB.
chStr = )(1-, Frequency = 4, Code = , Next chStr = T, Left chStr = )(, Right chStr = 1-.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = x, Left chStr = null, Right chStr = null.
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
```

```
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = U, Left chStr = null,
Right chStr = null.
chStr = U, Frequency = 3, Code = , Next chStr = H, Left chStr = null, Right chStr = null.
chStr = H, Frequency = 3, Code =, Next chStr = A, Left chStr = null, Right chStr = null.
chStr = A, Frequency = 3, Code = , Next chStr = 85, Left chStr = null, Right chStr = null.
chStr = 85, Frequency = 4, Code = , Next chStr = jWG, Left chStr = 8, Right chStr = 5.
chStr = jWG, Frequency = 4, Code = , Next chStr = FDPJ, Left chStr = jW, Right chStr = G.
chStr = FDPJ, Frequency = 4, Code = , Next chStr = ;4CB, Left chStr = FD, Right chStr = PJ.
chStr = ;4CB, Frequency = 4, Code = , Next chStr = )(1-, Left chStr = ;4, Right chStr = CB.
chStr = )(1-, Frequency = 4, Code = , Next chStr = T, Left chStr = )(, Right chStr = 1-.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = x, Left chStr = null, Right chStr = null.
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code =, Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
```

```
chStr = o \;, Frequency = 171, Code = \;, Next \; chStr = h \;, Left \; chStr = null, Right \; chStr = null. \\ chStr = h \;, Frequency = 184, Code = \;, Next \; chStr = s \;, Left \; chStr = null, Right \; chStr = null. \\ chStr = s \;, Frequency = 191, Code = \;, Next \; chStr = i \;, Left \; chStr = null, Right \; chStr = null. \\ chStr = i \;, Frequency = 196, Code = \;, Next \; chStr = n \;, Left \; chStr = null, Right \; chStr = null. \\ chStr = n \;, Frequency = 199, Code = \;, Next \; chStr = t \;, Left \; chStr = null, Right \; chStr = null. \\ chStr = t \;, Frequency = 220, Code = \;, Next \; chStr = a \;, Left \; chStr = null, Right \; chStr = null. \\ chStr = a \;, Frequency = 241, Code = \;, Next \; chStr = e \;, Left \; chStr = null, Right \; chStr = null. \\ chStr = e \;, Frequency = 270, Code = \;, Next \; chStr = \;, Left \; chStr = null, Right \; chStr = null. \\ chStr = \;, Frequency = 579, Code = \;, Next \; chStr = null, Left \; chStr = null, Right \; chStr = null. \\ ListHead --> \; chStr = dummy \;, Frequency = -999, Code = \;, Next \; chStr = A \;, Left \; chStr = null \;, Right \; chStr =
```

chStr = A, Frequency = 3, Code = , Next chStr = 85, Left chStr = null, Right chStr = null. chStr = 85, Frequency = 4, Code = , Next chStr = jWG, Left chStr = 8, Right chStr = 5. chStr = jWG, Frequency = 4, Code = , Next chStr = FDPJ, Left chStr = jW, Right chStr = G. chStr = FDPJ, Frequency = 4, Code = , Next chStr = ;4CB, Left chStr = FD, Right chStr = PJ. chStr = ;4CB, Frequency = 4, Code = , Next chStr = )(1-, Left chStr = ;4, Right chStr = CB. chStr = )(1-, Frequency = 4, Code = , Next chStr = T, Left chStr = )(, Right chStr = 1-. chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null. chStr = ', Frequency = 5, Code = , Next chStr = UH, Left chStr = null, Right chStr = null. chStr = UH, Frequency = 6, Code = , Next chStr = x, Left chStr = U, Right chStr = H. chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null. chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null. chStr = M, Frequency = 6, Code = , Next chStr = v, Left chStr = null, Right chStr = null. chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null. chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null. chStr = . , Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null. chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null. chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null. chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null. chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null. chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null. chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null. chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null. chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null. chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null. chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null. chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null. chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.

```
chStr = r , Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null. chStr = o , Frequency = 171, Code = , Next chStr = h, Left chStr = null, Right chStr = null. chStr = h , Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null. chStr = s , Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null. chStr = i , Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null. chStr = n , Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null. chStr = t , Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null. chStr = a , Frequency = 241, Code = , Next chStr = e, Left chStr = null, Right chStr = null. chStr = e , Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null. chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null. ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = jWG, Left chStr = null, Right chStr = null. chStr = jWG, Frequency = 4, Code = , Next chStr = FDPJ, Left chStr = jW, Right chStr = G. chStr = FDPJ, Frequency = 4, Code = , Next chStr = ;4CB, Left chStr = FD, Right chStr = PJ. chStr = ;4CB, Frequency = 4, Code = , Next chStr = )(1-, Left chStr = ;4, Right chStr = CB. chStr = )(1-, Frequency = 4, Code = , Next chStr = T, Left chStr = )(, Right chStr = 1-. chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null. chStr = ', Frequency = 5, Code = , Next chStr = UH, Left chStr = null, Right chStr = null. chStr = UH, Frequency = 6, Code = , Next chStr = x, Left chStr = U, Right chStr = H. chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null. chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null. chStr = M, Frequency = 6, Code = Next chStr = A85, Left chStr = null, Right chStr = null. chStr = A85, Frequency = 7, Code = , Next chStr = v, Left chStr = A, Right chStr = 85. chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null. chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null. chStr = . , Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null. chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null. chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null. chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null. chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null. chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null. chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null. chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null. chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null. chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null. chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null. chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null. chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null. chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.

```
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code =, Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = ;4CB, Left chStr = null,
Right chStr = null.
chStr = ;4CB, Frequency = 4, Code = , Next chStr = )(1-, Left chStr = ;4, Right chStr = CB.
chStr = )(1-, Frequency = 4, Code = , Next chStr = T, Left chStr = )(, Right chStr = 1-.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = UH, Left chStr = null, Right chStr = null.
chStr = UH, Frequency = 6, Code = , Next chStr = x, Left chStr = U, Right chStr = H.
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = A85, Left chStr = null, Right chStr = null.
chStr = A85, Frequency = 7, Code = , Next chStr = jWGFDPJ, Left chStr = A, Right chStr = 85.
chStr = jWGFDPJ, Frequency = 8, Code = , Next chStr = v, Left chStr = jWG, Right chStr =
FDPJ.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
```

```
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code =, Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code =, Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = T, Left chStr = null,
Right chStr = null.
chStr = T, Frequency = 5, Code = , Next chStr = ', Left chStr = null, Right chStr = null.
chStr = ', Frequency = 5, Code = , Next chStr = UH, Left chStr = null, Right chStr = null.
chStr = UH, Frequency = 6, Code = , Next chStr = x, Left chStr = U, Right chStr = H.
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = A85, Left chStr = null, Right chStr = null.
chStr = A85, Frequency = 7, Code = , Next chStr = ;4CB)(1-, Left chStr = A, Right chStr = 85.
chStr = ;4CB)(1-, Frequency = 8, Code = , Next chStr = jWGFDPJ, Left chStr = ;4CB, Right
chStr = )(1-.
chStr = jWGFDPJ, Frequency = 8, Code = , Next chStr = v, Left chStr = jWG, Right chStr =
FDPJ.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = . , Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
```

```
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code =, Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = UH, Left chStr = null,
Right chStr = null.
chStr = UH, Frequency = 6, Code = , Next chStr = x, Left chStr = U, Right chStr = H.
chStr = x, Frequency = 6, Code = , Next chStr = O, Left chStr = null, Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = Next chStr = A85, Left chStr = null, Right chStr = null.
chStr = A85, Frequency = 7, Code = , Next chStr = ;4CB)(1-, Left chStr = A, Right chStr = 85.
chStr = ;4CB)(1-, Frequency = 8, Code = , Next chStr = jWGFDPJ, Left chStr = ;4CB, Right
chStr = (1-...)
chStr = jWGFDPJ, Frequency = 8, Code = , Next chStr = T', Left chStr = jWG, Right chStr =
FDPJ.
chStr = T', Frequency = 10, Code = , Next chStr = v, Left chStr = T, Right chStr = '.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
```

```
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = O, Left chStr = null,
Right chStr = null.
chStr = O, Frequency = 6, Code = , Next chStr = M, Left chStr = null, Right chStr = null.
chStr = M, Frequency = 6, Code = , Next chStr = A85, Left chStr = null, Right chStr = null.
chStr = A85, Frequency = 7, Code = , Next chStr = (4CB)(1-, Left chStr = A, Right chStr = 85.
chStr = ;4CB)(1-, Frequency = 8, Code = , Next chStr = jWGFDPJ, Left chStr = ;4CB, Right
chStr = )(1-.
chStr = jWGFDPJ, Frequency = 8, Code = , Next chStr = T', Left chStr = jWG, Right chStr =
FDPJ.
chStr = T', Frequency = 10, Code = , Next chStr = UHx, Left chStr = T, Right chStr = '.
chStr = UHx, Frequency = 12, Code = , Next chStr = v, Left chStr = UH, Right chStr = x.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code = , Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
```

```
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = A85, Left chStr = null,
Right chStr = null.
chStr = A85, Frequency = 7, Code = , Next chStr = (4CB)(1 - Left chStr = A), Right chStr = 85.
chStr = ;4CB)(1-, Frequency = 8, Code = , Next chStr = jWGFDPJ, Left chStr = ;4CB, Right
chStr = (1-...)
chStr = jWGFDPJ, Frequency = 8, Code = , Next chStr = T', Left chStr = jWG, Right chStr =
FDPJ.
chStr = T', Frequency = 10, Code = , Next chStr = OM, Left chStr = T, Right chStr = '.
chStr = OM, Frequency = 12, Code =, Next chStr = UHx, Left chStr = O, Right chStr = M.
chStr = UHx, Frequency = 12, Code = , Next chStr = v, Left chStr = UH, Right chStr = x.
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
```

```
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = jWGFDPJ, Left chStr =
null, Right chStr = null.
chStr = jWGFDPJ, Frequency = 8, Code = , Next chStr = T', Left chStr = jWG, Right chStr =
FDPJ.
chStr = T', Frequency = 10, Code = , Next chStr = OM, Left chStr = T, Right chStr = '.
chStr = OM, Frequency = 12, Code =, Next chStr = UHx, Left chStr = O, Right chStr = M.
chStr = UHx, Frequency = 12, Code = , Next chStr = A85;4CB)(1-, Left chStr = UH, Right
chStr = x.
chStr = A85;4CB)(1-, Frequency = 15, Code = , Next chStr = v, Left chStr = A85, Right chStr =
(4CB)(1-.)
chStr = v, Frequency = 15, Code = , Next chStr = S, Left chStr = null, Right chStr = null.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
```

```
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = OM, Left chStr = null,
Right chStr = null.
chStr = OM, Frequency = 12, Code =, Next chStr = UHx, Left chStr = O, Right chStr = M.
chStr = UHx, Frequency = 12, Code = , Next chStr = A85;4CB)(1-, Left chStr = UH, Right
chStr = x.
chStr = A85;4CB)(1-, Frequency = 15, Code = , Next chStr = v, Left chStr = A85, Right chStr =
(4CB)(1-.)
chStr = v, Frequency = 15, Code = , Next chStr = jWGFDPJT', Left chStr = null, Right chStr =
null.
chStr = jWGFDPJT', Frequency = 18, Code = , Next chStr = jWGFDPJ, Right
chStr = T'.
chStr = S, Frequency = 18, Code = , Next chStr = ., Left chStr = null, Right chStr = null.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

```
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = A85;4CB)(1-, Left chStr
= null, Right chStr = null.
chStr = A85;4CB)(1-, Frequency = 15, Code = , Next chStr = v, Left chStr = A85, Right chStr =
;4CB)(1-.
chStr = v, Frequency = 15, Code = , Next chStr = jWGFDPJT', Left chStr = null, Right chStr =
chStr = jWGFDPJT', Frequency = 18, Code = , Next chStr = S, Left chStr = jWGFDPJ, Right
chStr = T'.
chStr = S, Frequency = 18, Code = , Next chStr = OMUHx, Left chStr = null, Right chStr = null.
chStr = OMUHx, Frequency = 24, Code =, Next chStr = ., Left chStr = OM, Right chStr =
UHx.
chStr = ., Frequency = 27, Code = , Next chStr = w, Left chStr = null, Right chStr = null.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

 $\label{listHead} \begin{subarray}{l} ListHead --> chStr = dummy \ , Frequency = -999, Code = \ , Next chStr = jWGFDPJT', Left chStr = null \ , Right chStr = null \ . \\ chStr = jWGFDPJT' \ , Frequency = 18, Code = \ , Next chStr = S, Left chStr = jWGFDPJ, Right \end{subarray}$ 

chStr = T'.

```
chStr = OMUHx, Frequency = 24, Code =, Next chStr = ., Left chStr = OM, Right chStr =
UHx.
chStr = ., Frequency = 27, Code = , Next chStr = A85;4CB)(1-v, Left chStr = null, Right chStr =
chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = Next chStr = w, Left chStr = Next chS
Right chStr = v.
chStr = w, Frequency = 30, Code = , Next chStr = k, Left chStr = null, Right chStr = null.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = OMUHx, Left chStr =
null, Right chStr = null.
chStr = OMUHx, Frequency = 24, Code =, Next chStr = ., Left chStr = OM, Right chStr =
UHx.
```

chStr = ., Frequency = 27, Code = , Next chStr = A85;4CB)(1-v, Left chStr = null, Right chStr =

chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Left chStr =

Right chStr = v.

chStr = S, Frequency = 18, Code = , Next chStr = OMUHx, Left chStr = null, Right chStr = null.

```
chStr = w, Frequency = 30, Code = , Next chStr = jWGFDPJT'S, Left chStr = null, Right chStr
= null.
chStr = jWGFDPJT'S, Frequency = 36, Code = , Next chStr = k, Left chStr = jWGFDPJT',
Right chStr = S.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code =, Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = g, Left chStr = null, Right chStr = null.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code = , Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = A85;4CB)(1-v, Left
chStr = null, Right chStr = null.
chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = 30, Code = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = Next chStr = w, Left chStr = A85;4CB)(1-v, Frequency = Next chStr = w, Left chStr = Next chStr = w, Left chStr = Next 
Right chStr = v.
chStr = w, Frequency = 30, Code = , Next chStr = jWGFDPJT'S, Left chStr = null, Right chStr
= null.
chStr = jWGFDPJT'S, Frequency = 36, Code = , Next chStr = k, Left chStr = jWGFDPJT',
Right chStr = S.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
```

```
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = OMUHx., Left chStr = null, Right chStr =
null.
chStr = OMUHx., Frequency = 51, Code = , Next chStr = g, Left chStr = OMUHx, Right chStr
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = jWGFDPJT'S, Left
chStr = null, Right chStr = null.
chStr = jWGFDPJT'S, Frequency = 36, Code = , Next chStr = k, Left chStr = jWGFDPJT',
Right chStr = S.
chStr = k, Frequency = 37, Code = , Next chStr = c, Left chStr = null, Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code = , Next chStr = OMUHx., Left chStr = null, Right chStr =
null.
chStr = OMUHx., Frequency = 51, Code = , Next chStr = A85;4CB)(1-vw, Left chStr =
OMUHx, Right chStr = ..
chStr = A85;4CB)(1-vw, Frequency = 60, Code = Next chStr = g, Left chStr = A85;4CB)(1-v, Code = Next chStr = R85;4CB)(1-v, Code = Next chStr
Right chStr = w.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = d, Left chStr = null, Right chStr = null.
```

chStr = , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.

```
chStr = d, Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code =, Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = c, Left chStr = null,
Right chStr = null.
chStr = c, Frequency = 38, Code = , Next chStr = y, Left chStr = null, Right chStr = null.
chStr = y, Frequency = 40, Code = , Next chStr = p, Left chStr = null, Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code =, Next chStr = OMUHx., Left chStr = null, Right chStr =
null.
chStr = OMUHx., Frequency = 51, Code = , Next chStr = A85;4CB)(1-vw, Left chStr =
OMUHx, Right chStr = ...
chStr = A85;4CB)(1-vw, Frequency = 60, Code = Next chStr = g, Left chStr = A85;4CB)(1-v, Code = Next chStr = R85;4CB)(1-v, Code = Next chStr
Right chStr = w.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = jWGFDPJT'Sk, Left chStr = null, Right chStr
= null.
chStr = jWGFDPJT'Sk, Frequency = 73, Code = , Next chStr = d, Left chStr = jWGFDPJT'S,
Right chStr = k.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
```

```
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = p, Left chStr = null,
Right chStr = null.
chStr = p, Frequency = 40, Code = , Next chStr = b, Left chStr = null, Right chStr = null.
chStr = b, Frequency = 40, Code = , Next chStr = ,, Left chStr = null, Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code =, Next chStr = m, Left chStr = null, Right chStr = null.
chStr = m, Frequency = 49, Code = , Next chStr = OMUHx., Left chStr = null, Right chStr =
null.
chStr = OMUHx., Frequency = 51, Code = , Next chStr = A85;4CB)(1-vw, Left chStr =
OMUHx, Right chStr = ..
chStr = A85;4CB)(1-vw, Frequency = 60, Code = , Next chStr = g, Left chStr = A85;4CB)(1-v,
Right chStr = w.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = jWGFDPJT'Sk, Left chStr = null, Right chStr
= null.
chStr = jWGFDPJT'Sk, Frequency = 73, Code = , Next chStr = cy, Left chStr = jWGFDPJT'S,
Right chStr = k.
chStr = cy, Frequency = 78, Code = , Next chStr = d, Left chStr = c, Right chStr = y.
chStr = d, Frequency = 84, Code = , Next chStr = l, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = ,, Left chStr = null,
Right chStr = null.
chStr = , , Frequency = 43, Code = , Next chStr = u, Left chStr = null, Right chStr = null.
chStr = u, Frequency = 46, Code = , Next chStr = m, Left chStr = null, Right chStr = null.
```

```
chStr = m, Frequency = 49, Code = , Next chStr = OMUHx., Left chStr = null, Right chStr =
null.
chStr = OMUHx., Frequency = 51, Code = , Next chStr = A85;4CB)(1-vw, Left chStr =
OMUHx, Right chStr = ..
chStr = A85;4CB)(1-vw, Frequency = 60, Code = Next chStr = g, Left chStr = A85;4CB)(1-v, Code = Next chStr = R85;4CB)(1-v, Code = Next chStr
Right chStr = w.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = jWGFDPJT'Sk, Left chStr = null, Right chStr
chStr = jWGFDPJT'Sk, Frequency = 73, Code = , Next chStr = cy, Left chStr = jWGFDPJT'S,
Right chStr = k.
chStr = cy, Frequency = 78, Code = , Next chStr = pb, Left chStr = c, Right chStr = y.
chStr = pb, Frequency = 80, Code = , Next chStr = d, Left chStr = p, Right chStr = b.
chStr = d, Frequency = 84, Code = , Next chStr = 1, Left chStr = null, Right chStr = null.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code = , Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = m, Left chStr = null,
chStr = m, Frequency = 49, Code = , Next chStr = OMUHx., Left chStr = null, Right chStr =
```

Right chStr = null.

null.

chStr = OMUHx., Frequency = 51, Code = , Next chStr = A85;4CB)(1-vw, Left chStr = OMUHx, Right chStr = ...

chStr = A85;4CB)(1-vw, Frequency = 60, Code = Next chStr = g, Left chStr = A85;4CB)(1-v, Code = Next chStr = R85;4CB)(1-v, Code = Next chStrRight chStr = w.

chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null. chStr = f, Frequency = 71, Code = , Next chStr = jWGFDPJT'Sk, Left chStr = null, Right chStr

chStr = jWGFDPJT'Sk, Frequency = 73, Code = , Next chStr = cy, Left chStr = jWGFDPJT'S, Right chStr = k.

chStr = cy, Frequency = 78, Code = , Next chStr = pb, Left chStr = c, Right chStr = y.

= null.

```
chStr = pb, Frequency = 80, Code = Next chStr = d, Left chStr = p, Right chStr = b.
chStr = d, Frequency = 84, Code = , Next chStr = ,u, Left chStr = null, Right chStr = null.
chStr = .u., Frequency = 89, Code = . Next chStr = 1, Left chStr = .. Right chStr = u.
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code =, Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = A85;4CB)(1-vw, Left
chStr = null, Right chStr = null.
chStr = A85;4CB)(1-vw, Frequency = 60, Code = , Next chStr = g, Left chStr = A85;4CB)(1-v,
Right chStr = w.
chStr = g, Frequency = 65, Code = , Next chStr = f, Left chStr = null, Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = jWGFDPJT'Sk, Left chStr = null, Right chStr
= null.
chStr = jWGFDPJT'Sk, Frequency = 73, Code = , Next chStr = cy, Left chStr = jWGFDPJT'S,
Right chStr = k.
chStr = cy, Frequency = 78, Code = , Next chStr = pb, Left chStr = c, Right chStr = y.
chStr = pb, Frequency = 80, Code = , Next chStr = d, Left chStr = p, Right chStr = b.
chStr = d, Frequency = 84, Code = , Next chStr = ,u, Left chStr = null, Right chStr = null.
chStr = ,u, Frequency = 89, Code = , Next chStr = mOMUHx., Left chStr = ,, Right chStr = u.
chStr = mOMUHx., Frequency = 100, Code = , Next chStr = 1, Left chStr = m, Right chStr =
OMUHx..
chStr = 1, Frequency = 101, Code = , Next chStr = r, Left chStr = null, Right chStr = null.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
```

```
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = f, Left chStr = null,
Right chStr = null.
chStr = f, Frequency = 71, Code = , Next chStr = jWGFDPJT'Sk, Left chStr = null, Right chStr
chStr = jWGFDPJT'Sk, Frequency = 73, Code = , Next chStr = cy, Left chStr = jWGFDPJT'S,
Right chStr = k.
chStr = cy, Frequency = 78, Code = , Next chStr = pb, Left chStr = c, Right chStr = y.
chStr = pb, Frequency = 80, Code = , Next chStr = d, Left chStr = p, Right chStr = b.
chStr = d, Frequency = 84, Code = , Next chStr = ,u, Left chStr = null, Right chStr = null.
chStr = ,u, Frequency = 89, Code = , Next chStr = mOMUHx., Left chStr = ,, Right chStr = u.
chStr = mOMUHx., Frequency = 100, Code = , Next chStr = 1, Left chStr = m, Right chStr =
OMUHx..
chStr = 1, Frequency = 101, Code = , Next chStr = A85;4CB)(1-vwg, Left chStr = null, Right
chStr = null.
chStr = A85;4CB)(1-vwg, Frequency = 125, Code = , Next chStr = r, Left chStr =
A85;4CB)(1-vw, Right chStr = g.
chStr = r, Frequency = 126, Code = , Next chStr = o, Left chStr = null, Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = cy, Left chStr = null,
Right chStr = null.
chStr = cy, Frequency = 78, Code = , Next chStr = pb, Left chStr = c, Right chStr = y.
chStr = pb, Frequency = 80, Code = , Next chStr = d, Left chStr = p, Right chStr = b.
chStr = d, Frequency = 84, Code = , Next chStr = ,u, Left chStr = null, Right chStr = null.
chStr = ,u, Frequency = 89, Code = , Next chStr = mOMUHx., Left chStr = ,, Right chStr = u.
chStr = mOMUHx., Frequency = 100, Code = , Next chStr = 1, Left chStr = m, Right chStr =
OMUHx..
chStr = 1, Frequency = 101, Code = , Next chStr = A85;4CB)(1-vwg, Left chStr = null, Right
chStr = null.
```

```
chStr = A85;4CB)(1-vwg, Frequency = 125, Code = , Next chStr = r, Left chStr =
A85;4CB)(1-vw, Right chStr = g.
chStr = r, Frequency = 126, Code = , Next chStr = fjWGFDPJT'Sk, Left chStr = null, Right
chStr = null.
chStr = fjWGFDPJT'Sk, Frequency = 144, Code = , Next chStr = o, Left chStr = f, Right chStr =
jWGFDPJT'Sk.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = d, Left chStr = null,
Right chStr = null.
chStr = d, Frequency = 84, Code = , Next chStr = ,u, Left chStr = null, Right chStr = null.
chStr = ,u, Frequency = 89, Code = , Next chStr = mOMUHx., Left chStr = ,, Right chStr = u.
chStr = mOMUHx., Frequency = 100, Code = , Next chStr = l, Left chStr = m, Right chStr =
OMUHx..
chStr = 1, Frequency = 101, Code = , Next chStr = A85;4CB)(1-vwg, Left chStr = null, Right
chStr = null.
chStr = A85;4CB)(1-vwg, Frequency = 125, Code = , Next chStr = r, Left chStr =
A85;4CB)(1-vw, Right chStr = g.
chStr = r, Frequency = 126, Code = , Next chStr = fjWGFDPJT'Sk, Left chStr = null, Right
chStr = null.
chStr = fjWGFDPJT'Sk, Frequency = 144, Code = , Next chStr = cypb, Left chStr = f, Right
chStr = jWGFDPJT'Sk.
chStr = cypb, Frequency = 158, Code = , Next chStr = o, Left chStr = cy, Right chStr = pb.
chStr = o, Frequency = 171, Code =, Next chStr = h, Left chStr = null, Right chStr = null.
chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
```

```
ListHead --> chStr = dummy , Frequency = -999, Code = , Next chStr = mOMUHx., Left chStr = null , Right chStr = null . chStr = mOMUHx. , Frequency = 100, Code = , Next chStr = l, Left chStr = m, Right chStr = OMUHx..
```

chStr = 1, Frequency = 101, Code = , Next chStr = A85;4CB)(1-vwg, Left chStr = null, Right chStr = null.

chStr = A85;4CB)(1-vwg, Frequency = 125, Code = , Next chStr = r, Left chStr = A85;4CB)(1-vw, Right chStr = g.

chStr = r, Frequency = 126, Code = , Next chStr = fjWGFDPJT'Sk, Left chStr = null, Right chStr = null.

chStr = fjWGFDPJT'Sk, Frequency = 144, Code = , Next chStr = cypb, Left chStr = f, Right chStr = jWGFDPJT'Sk.

chStr = cypb, Frequency = 158, Code = , Next chStr = o, Left chStr = cy, Right chStr = pb.

chStr = o, Frequency = 171, Code =, Next chStr = d,u, Left chStr = null, Right chStr = null.

chStr = d,u, Frequency = 173, Code = , Next chStr = h, Left chStr = d, Right chStr = ,u.

chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.

chStr = s, Frequency = 191, Code =, Next chStr = i, Left chStr = null, Right chStr = null.

chStr = i , Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.

chStr = n, Frequency = 199, Code = , Next chStr = t, Left chStr = null, Right chStr = null.

 $chStr = t \;, \; Frequency = 220, \; Code = , \; Next \; chStr = a, \; Left \; chStr = null, \; Right \; chStr = null.$ 

 $chStr = a \;, \; Frequency = 241, \; Code = , \; Next \; chStr = e, \; Left \; chStr = null, \; Right \; chStr = null. \;$ 

chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.

chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.

ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = A85;4CB)(1-vwg, Left chStr = null, Right chStr = null.

chStr = A85;4CB)(1-vwg, Frequency = 125, Code = , Next chStr = r, Left chStr = A85;4CB)(1-vw, Right chStr = g.

chStr = r, Frequency = 126, Code = , Next chStr = fjWGFDPJT'Sk, Left chStr = null, Right chStr = null.

chStr = fjWGFDPJT'Sk, Frequency = 144, Code = , Next chStr = cypb, Left chStr = f, Right chStr = jWGFDPJT'Sk.

chStr = cypb, Frequency = 158, Code =, Next chStr = o, Left chStr = cy, Right chStr = pb.

chStr = o, Frequency = 171, Code =, Next chStr = d,u, Left chStr = null, Right chStr = null.

chStr = d,u, Frequency = 173, Code =, Next chStr = h, Left chStr = d, Right chStr = ,u.

chStr = h, Frequency = 184, Code =, Next chStr = s, Left chStr = null, Right chStr = null.

 $chStr = s \;, \; Frequency = 191, \; Code = , \; Next \; chStr = i, \; Left \; chStr = null, \; Right \; chStr = null.$ 

 $chStr = i \;, \; Frequency = 196, \; Code = , \; Next \; chStr = n, \; Left \; chStr = null, \; Right \; chStr = null.$ 

```
chStr = n, Frequency = 199, Code = , Next chStr = mOMUHx.l, Left chStr = null, Right chStr =
null.
chStr = mOMUHx.1, Frequency = 201, Code = , Next chStr = t, Left chStr = mOMUHx., Right
chStr = 1.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = e, Left chStr = null, Right chStr = null.
chStr = e, Frequency = 270, Code =, Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = fjWGFDPJT'Sk, Left
chStr = null, Right chStr = null.
chStr = fjWGFDPJT'Sk, Frequency = 144, Code = , Next chStr = cypb, Left chStr = f, Right
chStr = jWGFDPJT'Sk.
chStr = cypb, Frequency = 158, Code = , Next chStr = o, Left chStr = cy, Right chStr = pb.
chStr = o, Frequency = 171, Code =, Next chStr = d,u, Left chStr = null, Right chStr = null.
chStr = d,u, Frequency = 173, Code = , Next chStr = h, Left chStr = d, Right chStr = ,u.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = mOMUHx.l, Left chStr = null, Right chStr =
chStr = mOMUHx.1, Frequency = 201, Code = , Next chStr = t, Left chStr = mOMUHx., Right
chStr = 1.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = A85;4CB)(1-vwgr, Left chStr = null, Right
chStr = null.
chStr = A85;4CB)(1-vwgr, Frequency = 251, Code = , Next chStr = e, Left chStr =
A85;4CB)(1-vwg, Right chStr = r.
chStr = e, Frequency = 270, Code = , Next chStr = , Left chStr = null, Right chStr = null.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = o, Left chStr = null,
Right chStr = null.
chStr = o, Frequency = 171, Code =, Next chStr = d,u, Left chStr = null, Right chStr = null.
chStr = d,u, Frequency = 173, Code = , Next chStr = h, Left chStr = d, Right chStr = ,u.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = mOMUHx.l, Left chStr = null, Right chStr =
null.
```

```
chStr = mOMUHx.1, Frequency = 201, Code = , Next chStr = t, Left chStr = mOMUHx., Right
chStr = 1.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = A85;4CB)(1-vwgr, Left chStr = null, Right
chStr = null.
chStr = A85;4CB)(1-vwgr, Frequency = 251, Code = , Next chStr = e, Left chStr =
A85;4CB)(1-vwg, Right chStr = r.
chStr = e, Frequency = 270, Code =, Next chStr = fjWGFDPJT'Skcypb, Left chStr = null, Right
chStr = null.
chStr = f<sub>1</sub>WGFDPJT'Skcypb , Frequency = 302, Code = , Next chStr = , Left chStr =
fjWGFDPJT'Sk, Right chStr = cypb.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = h, Left chStr = null,
Right chStr = null.
chStr = h, Frequency = 184, Code = , Next chStr = s, Left chStr = null, Right chStr = null.
chStr = s, Frequency = 191, Code = , Next chStr = i, Left chStr = null, Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = mOMUHx.l, Left chStr = null, Right chStr =
null.
chStr = mOMUHx.1, Frequency = 201, Code = , Next chStr = t, Left chStr = mOMUHx., Right
chStr = 1.
chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.
chStr = a, Frequency = 241, Code =, Next chStr = A85;4CB)(1-vwgr, Left chStr = null, Right
chStr = null.
chStr = A85;4CB)(1-vwgr, Frequency = 251, Code = , Next chStr = e, Left chStr =
A85;4CB)(1-vwg, Right chStr = r.
chStr = e, Frequency = 270, Code =, Next chStr = fjWGFDPJT'Skcypb, Left chStr = null, Right
chStr = null.
chStr = fjWGFDPJT'Skcypb, Frequency = 302, Code = , Next chStr = od,u, Left chStr =
fjWGFDPJT'Sk, Right chStr = cypb.
chStr = od_{,u}, Frequency = 344, Code = , Next chStr = o, Left chStr = o, Right chStr = d_{,u}.
chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = i, Left chStr = null,
Right chStr = null.
chStr = i, Frequency = 196, Code = , Next chStr = n, Left chStr = null, Right chStr = null.
chStr = n, Frequency = 199, Code = , Next chStr = mOMUHx.l, Left chStr = null, Right chStr =
null.
```

```
chStr = mOMUHx.1 \,, \, Frequency = 201, \, Code = \,, \, Next \, chStr = t, \, Left \, chStr = mOMUHx., \, Right \, chStr = 1.
```

chStr = t, Frequency = 220, Code = , Next chStr = a, Left chStr = null, Right chStr = null.

chStr = a, Frequency = 241, Code = , Next chStr = A85;4CB)(1-vwgr, Left chStr = null, Right <math>chStr = null.

chStr = A85;4CB)(1-vwgr, Frequency = 251, Code = , Next chStr = e, Left chStr = A85;4CB)(1-vwg, Right chStr = r.

chStr = e, Frequency = 270, Code =, Next chStr = fjWGFDPJT'Skcypb, Left chStr = null, Right chStr = null.

chStr = fjWGFDPJT'Skcypb , Frequency = 302, Code = , Next chStr = od,u, Left chStr = fjWGFDPJT'Sk, Right chStr = cypb.

chStr = od,u, Frequency = 344, Code = , Next chStr = hs, Left chStr = o, Right chStr = d,u.

chStr = hs, Frequency = 375, Code = , Next chStr = , Left chStr = h, Right chStr = s.

chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.

ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = mOMUHx.l, Left chStr = null, Right chStr = null.

chStr = mOMUHx.1, Frequency = 201, Code = , Next chStr = t, Left chStr = mOMUHx., Right chStr = 1.

chStr = t, Frequency = 220, Code =, Next chStr = a, Left chStr = null, Right chStr = null.

chStr = a, Frequency = 241, Code =, Next chStr = A85;4CB)(1-vwgr, Left chStr = null, Right chStr = null.

chStr = A85;4CB)(1-vwgr, Frequency = 251, Code = , Next chStr = e, Left chStr = A85;4CB)(1-vwg, Right chStr = r.

chStr = e, Frequency = 270, Code =, Next chStr = fjWGFDPJT'Skcypb, Left chStr = null, Right chStr = null.

chStr = fjWGFDPJT'Skcypb , Frequency = 302, Code = , Next chStr = od,u, Left chStr = fjWGFDPJT'Sk, Right chStr = cypb.

chStr = od,u, Frequency = 344, Code =, Next chStr = hs, Left chStr = o, Right chStr = d,u.

chStr = hs, Frequency = 375, Code =, Next chStr = in, Left chStr = h, Right chStr = s.

chStr = in, Frequency = 395, Code = , Next chStr = , Left chStr = i, Right chStr = n.

chStr =, Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = a, Left chStr = null, Right chStr = null.

chStr = a, Frequency = 241, Code =, Next chStr = A85;4CB)(1-vwgr, Left chStr = null, Right chStr = null.

chStr = A85;4CB)(1-vwgr, Frequency = 251, Code = , Next chStr = e, Left chStr = A85;4CB)(1-vwg, Right chStr = r.

```
chStr = e, Frequency = 270, Code =, Next chStr = fjWGFDPJT'Skcypb, Left chStr = null, Right chStr = null.
```

chStr = fjWGFDPJT'Skcypb , Frequency = 302, Code = , Next chStr = od,u, Left chStr = fjWGFDPJT'Sk, Right chStr = cypb.

chStr = od,u, Frequency = 344, Code =, Next chStr = hs, Left chStr = o, Right chStr = d,u.

chStr = hs, Frequency = 375, Code =, Next chStr = in, Left chStr = h, Right chStr = s.

chStr = in, Frequency = 395, Code =, Next chStr = mOMUHx.lt, Left chStr = i, Right chStr = n.

chStr = mOMUHx.lt, Frequency = 421, Code = , Next chStr =, Left chStr = mOMUHx.l, Right chStr = t.

chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = e, Left chStr = null, Right chStr = null.

chStr = e, Frequency = 270, Code =, Next chStr = fjWGFDPJT'Skcypb, Left chStr = null, Right chStr = null.

chStr = fjWGFDPJT'Skcypb , Frequency = 302, Code = , Next chStr = od,u, Left chStr = fjWGFDPJT'Sk, Right chStr = cypb.

chStr = od,u, Frequency = 344, Code = , Next chStr = hs, Left chStr = o, Right chStr = d,u.

chStr = hs, Frequency = 375, Code =, Next chStr = in, Left chStr = h, Right chStr = s.

 $chStr = in \;, \; Frequency = 395, \; Code = \;, \; Next \; chStr = mOMUHx.lt, \; Left \; chStr = i, \; Right \; chStr = n.$ 

chStr = mOMUHx.lt, Frequency = 421, Code = , Next chStr = aA85;4CB)(1-vwgr, Left chStr = mOMUHx.l, Right chStr = t.

chStr = aA85;4CB)(1-vwgr, Frequency = 492, Code = , Next chStr = , Left chStr = a, Right chStr = A85;4CB)(1-vwgr.

chStr = , Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = od,u, Left chStr = null, Right chStr = null.

chStr = od,u, Frequency = 344, Code = , Next chStr = hs, Left chStr = o, Right chStr = d,u.

 $chStr = hs \;, \; Frequency = 375, \; Code = \;, \; Next \; chStr = in, \; Left \; chStr = h, \; Right \; chStr = s.$ 

 $chStr = in \;, \; Frequency = 395, \; Code = \;, \; Next \; chStr = mOMUHx.lt, \; Left \; chStr = i, \; Right \; chStr = n.$ 

chStr = mOMUHx.lt, Frequency = 421, Code = , Next chStr = aA85;4CB)(1-vwgr, Left chStr = mOMUHx.l, Right chStr = t.

 $chStr = aA85; 4CB)(1-vwgr , Frequency = 492, Code = , Next \ chStr = efjWGFDPJT'Skcypb, Left \ chStr = a, Right \ chStr = A85; 4CB)(1-vwgr.$ 

chStr = efjWGFDPJT'Skcypb , Frequency = 572, Code = , Next chStr = , Left chStr = e, Right chStr = fjWGFDPJT'Skcypb.

chStr =, Frequency = 579, Code = , Next chStr = null, Left chStr = null, Right chStr = null.

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = in, Left chStr = null, Right chStr = null.

chStr = in, Frequency = 395, Code = , Next chStr = mOMUHx.lt, Left chStr = i, Right chStr = n. chStr = mOMUHx.lt, Frequency = 421, Code = , Next chStr = aA85;4CB)(1-vwgr, Left chStr = mOMUHx.l, Right chStr = t.

chStr = aA85;4CB)(1-vwgr, Frequency = 492, Code = , Next chStr = efjWGFDPJT'Skcypb, Left chStr = a, Right chStr = A85;4CB)(1-vwgr.

chStr = efjWGFDPJT'Skcypb, Frequency = 572, Code = , Next chStr = , Left chStr = e, Right chStr = fjWGFDPJT'Skcypb.

chStr = , Frequency = 579, Code = , Next chStr = od,uhs, Left chStr = null, Right chStr = null. chStr = od,uhs , Frequency = 719, Code = , Next chStr = null, Left chStr = od,u, Right chStr = null.

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = aA85;4CB)(1-vwgr, Left chStr = null, Right chStr = null.

chStr = aA85;4CB)(1-vwgr, Frequency = 492, Code = , Next chStr = efjWGFDPJT'Skcypb, Left chStr = a, Right chStr = A85;4CB)(1-vwgr.

chStr = efjWGFDPJT'Skcypb, Frequency = 572, Code = , Next chStr = , Left chStr = e, Right chStr = fjWGFDPJT'Skcypb.

chStr = , Frequency = 579, Code = , Next chStr = od,uhs, Left chStr = null, Right chStr = null. chStr = od,uhs , Frequency = 719, Code = , Next chStr = inmOMUHx.lt, Left chStr = od,u, Right chStr = hs.

chStr = inmOMUHx.lt, Frequency = 816, Code = , Next chStr = null, Left chStr = in, Right chStr = null.

ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr = null, Right chStr = null.

chStr = , Frequency = 579, Code = , Next chStr = od,uhs, Left chStr = null, Right chStr = null. chStr = od,uhs , Frequency = 719, Code = , Next chStr = inmOMUHx.lt, Left chStr = od,u, Right chStr = hs.

chStr = inmOMUHx.lt, Frequency = 816, Code = , Next chStr =

aA85;4CB)(1-vwgrefjWGFDPJT'Skcypb, Left chStr = in, Right chStr = mOMUHx.lt.

 $chStr = aA85; 4CB) (1-vwgrefjWGFDPJT'Skcypb \,,\, Frequency = 1064,\, Code = ,\, Next\,\, chStr = null,\, Left\,\, chStr = aA85; 4CB) (1-vwgr,\, Right\,\, chStr = null.$ 

ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = inmOMUHx.lt, Left chStr = null, Right chStr = null.

chStr = inmOMUHx.lt, Frequency = 816, Code = , Next chStr = aA85;4CB)(1-vwgrefjWGFDPJT'Skcypb, Left chStr = in, Right chStr = mOMUHx.lt.

```
chStr = aA85;4CB)(1-vwgrefjWGFDPJT'Skcypb, Frequency = 1064, Code = Next chStr =
od, uhs, Left chStr = aA85;4CB)(1-vwgr, Right chStr = efjWGFDPJT'Skcypb.
chStr = od,uhs, Frequency = 1298, Code = , Next chStr = null, Left chStr = , Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code =, Next chStr = od,uhs, Left chStr =
null, Right chStr = null.
chStr = od,uhs, Frequency = 1298, Code = Next chStr =
inmOMUHx.ltaA85;4CB)(1-vwgrefjWGFDPJT'Skcypb, Left chStr = , Right chStr = od,uhs.
chStr = inmOMUHx.ltaA85;4CB)(1-vwgrefjWGFDPJT'Skcypb, Frequency = 1880, Code = ,
Next chStr = null, Left chStr = inmOMUHx.lt, Right chStr = null.
ListHead --> chStr = dummy, Frequency = -999, Code = , Next chStr =
od, uhsinmOMUHx.ltaA85;4CB)(1-vwgrefjWGFDPJT'Skcypb, Left chStr = null, Right chStr =
null.
chStr = od,uhsinmOMUHx.ltaA85;4CB)(1-vwgrefjWGFDPJT'Skcypb, Frequency = 3178,
Code = , Next chStr = null, Left chStr = od, uhs, Right chStr = null.
Preforming inOrder Traversal
chStr = , Frequency = 579, Code = 00, Next chStr = od, uhs, Left chStr = null, Right chStr =
null.
chStr = od,uhs, Frequency = 1298, Code = Next chStr =
inmOMUHx.ltaA85;4CB)(1-vwgrefjWGFDPJT'Skcypb, Left chStr = , Right chStr = od,uhs.
chStr = o, Frequency = 171, Code = 0100, Next chStr = d,u, Left chStr = null, Right chStr =
null.
chStr = od,u, Frequency = 344, Code = , Next chStr = hs, Left chStr = o, Right chStr = d,u.
chStr = d, Frequency = 84, Code = 01010, Next chStr = ,u, Left chStr = null, Right chStr = null.
chStr = d,u, Frequency = 173, Code = , Next chStr = h, Left chStr = d, Right chStr = ,u.
chStr = , , Frequency = 43, Code = 010110, Next chStr = u, Left chStr = null, Right chStr = null.
chStr = ,u, Frequency = 89, Code = , Next chStr = mOMUHx., Left chStr = ... Right chStr = u.
chStr = u, Frequency = 46, Code = 010111, Next chStr = m, Left chStr = null, Right chStr =
null.
chStr = od,uhs, Frequency = 719, Code =, Next chStr = inmOMUHx.lt, Left chStr = od,u, Right
chStr = hs.
chStr = h, Frequency = 184, Code = 0110, Next chStr = s, Left chStr = null, Right chStr = null.
chStr = hs, Frequency = 375, Code = , Next chStr = in, Left chStr = h, Right chStr = s.
chStr = s, Frequency = 191, Code = 0111, Next chStr = i, Left chStr = null, Right chStr = null.
chStr = od,uhsinmOMUHx.ltaA85;4CB)(1-vwgrefjWGFDPJT'Skcypb, Frequency = 3178,
Code = , Next chStr = null, Left chStr = od, uhs, Right chStr = null.
chStr = i, Frequency = 196, Code = 1000, Next chStr = n, Left chStr = null, Right chStr = null.
```

chStr = in, Frequency = 395, Code = , Next chStr = mOMUHx.lt, Left chStr = i, Right chStr = n.

```
chStr = n, Frequency = 199, Code = 1001, Next chStr = mOMUHx.l, Left chStr = null, Right chStr = null.
```

- chStr = inmOMUHx.lt, Frequency = 816, Code = , Next chStr =
- aA85;4CB)(1-vwgrefjWGFDPJT'Skcypb, Left chStr = in, Right chStr = mOMUHx.lt.
- chStr = m, Frequency = 49, Code = 101000, Next chStr = OMUHx., Left chStr = null, Right chStr = null.
- chStr = mOMUHx., Frequency = 100, Code = , Next chStr = l, Left chStr = m, Right chStr = OMUHx..
- chStr = O, Frequency = 6, Code = 101001000, Next chStr = M, Left chStr = null, Right chStr = null.
- chStr = OM, Frequency = 12, Code =, Next chStr = UHx, Left chStr = O, Right chStr = M.
- chStr = M, Frequency = 6, Code = 101001001, Next chStr = A85, Left chStr = null, Right chStr = null.
- chStr = OMUHx, Frequency = 24, Code = , Next chStr = ., Left chStr = OM, Right chStr = UHx.
- chStr = U, Frequency = 3, Code = 1010010100, Next chStr = H, Left chStr = null, Right chStr = null.
- chStr = UH, Frequency = 6, Code = , Next chStr = x, Left chStr = U, Right chStr = H.
- chStr = H, Frequency = 3, Code = 1010010101, Next chStr = A, Left chStr = null, Right chStr = null.
- chStr = UHx, Frequency = 12, Code = , Next chStr = A85;4CB)(1-, Left chStr = UH, Right chStr = x.
- chStr = x, Frequency = 6, Code = 101001011, Next chStr = O, Left chStr = null, Right chStr = null.
- chStr = OMUHx., Frequency = 51, Code = , Next chStr = A85;4CB)(1-vw, Left chStr = OMUHx, Right chStr = ..
- chStr = . , Frequency = 27, Code = 1010011, Next chStr = A85;4CB)(1-v, Left chStr = null, Right chStr = null.
- chStr = mOMUHx.1, Frequency = 201, Code = , Next chStr = t, Left chStr = mOMUHx., Right chStr = 1.
- chStr = 1, Frequency = 101, Code = 10101, Next chStr = A85;4CB)(1-vwg, Left chStr = null, Right chStr = null.
- $chStr = mOMUHx.lt \;, \; Frequency = 421, \; Code = \;, \; Next \; chStr = aA85; \\ 4CB)(1-vwgr, \; Left \; chStr = mOMUHx.l, \; Right \; chStr = t.$
- chStr = t, Frequency = 220, Code = 1011, Next chStr = a, Left chStr = null, Right chStr = null.
- $chStr = inmOMUHx.ltaA85; 4CB) (1-vwgrefjWGFDPJT'Skcypb \;, Frequency = 1880, Code = \;, \\$
- Next chStr = od,uhsinmOMUHx.ltaA85;4CB)(1-vwgrefjWGFDPJT'Skcypb, Left chStr = inmOMUHx.lt, Right chStr = aA85;4CB)(1-vwgrefjWGFDPJT'Skcypb.
- chStr = a, Frequency = 241, Code = 1100, Next chStr = A85;4CB)(1-vwgr, Left chStr = null, Right chStr = null.

```
chStr = aA85;4CB)(1-vwgr, Frequency = 492, Code = , Next chStr = efjWGFDPJT'Skcypb, Left chStr = a, Right chStr = A85;4CB)(1-vwgr.
```

- chStr = A, Frequency = 3, Code = 1101000000, Next chStr = 85, Left chStr = null, Right chStr = null.
- chStr = A85, Frequency = 7, Code = , Next chStr = ;4CB)(1-, Left chStr = A, Right chStr = 85.
- chStr = 8, Frequency = 2, Code = 11010000010, Next chStr = 5, Left chStr = null, Right chStr = null.
- chStr = 85, Frequency = 4, Code =, Next chStr = jWG, Left chStr = 8, Right chStr = 5.
- chStr = 5, Frequency = 2, Code = 11010000011, Next chStr = U, Left chStr = null, Right chStr = null.
- chStr = A85;4CB)(1-, Frequency = 15, Code = , Next chStr = v, Left chStr = A85, Right chStr = ;4CB)(1-.
- chStr = ;, Frequency = 1, Code = 110100001000, Next chStr = 4, Left chStr = null, Right chStr = null.
- chStr = ;4, Frequency = 2, Code = , Next chStr = CB, Left chStr = ;, Right chStr = 4.
- chStr = 4, Frequency = 1, Code = 110100001001, Next chStr = 1, Left chStr = null, Right chStr = null.
- chStr = ;4CB, Frequency = 4, Code = , Next chStr = )(1-, Left chStr = ;4, Right chStr = CB.
- chStr = C, Frequency = 1, Code = 110100001010, Next chStr = B, Left chStr = null, Right chStr = null.
- chStr = CB, Frequency = 2, Code = , Next chStr = FD, Left chStr = C, Right chStr = B.
- chStr = B, Frequency = 1, Code = 110100001011, Next chStr = ;, Left chStr = null, Right chStr = null.
- chStr = ;4CB)(1-, Frequency = 8, Code = , Next chStr = jWGFDPJ, Left chStr = ;4CB, Right chStr = )(1-.
- chStr = ), Frequency = 1, Code = 110100001100, Next chStr = (, Left chStr = null, Right chStr = null.
- chStr = )(, Frequency = 2, Code = , Next chStr = 1-, Left chStr = ), Right chStr = (.
- chStr = (, Frequency = 1, Code = 110100001101, Next chStr = )(, Left chStr = null, Right chStr = null.
- chStr = )(1-, Frequency = 4, Code = , Next chStr = T, Left chStr = )(, Right chStr = 1-.
- chStr = 1, Frequency = 1, Code = 110100001110, Next chStr = -, Left chStr = null, Right chStr = null.
- chStr = 1-, Frequency = 2, Code = , Next chStr = ;4, Left chStr = 1, Right chStr = -.
- chStr = -, Frequency = 1, Code = 110100001111, Next chStr = ), Left chStr = null, Right chStr = null.
- chStr = A85;4CB)(1-v, Frequency = 30, Code = , Next chStr = w, Left chStr = A85;4CB)(1-v), Right chStr = v.
- chStr = v, Frequency = 15, Code = 11010001, Next chStr = jWGFDPJT', Left chStr = null, Right chStr = null.

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chStr = A85;4CB)(1-vw, Frequency = 60, Code = , Next chStr = g, Left chStr = A85;4CB)(1-v, Right chStr = w.
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chStr = w, Frequency = 30, Code = 1101001, Next chStr = jWGFDPJT'S, Left chStr = null, Right chStr = null.

chStr = A85;4CB)(1-vwg, Frequency = 125, Code = , Next chStr = r, Left chStr = A85;4CB)(1-vw, Right chStr = g.

chStr = g, Frequency = 65, Code = 110101, Next chStr = f, Left chStr = null, Right chStr = null. chStr = A85;4CB)(1-vwgr, Frequency = 251, Code = , Next chStr = e, Left chStr = A85;4CB)(1-vwg, Right chStr = r.

chStr = r, Frequency = 126, Code = 11011, Next chStr = fjWGFDPJT'Sk, Left chStr = null, Right chStr = null.

chStr = aA85;4CB)(1-vwgrefjWGFDPJT'Skcypb, Frequency = 1064, Code = , Next chStr = od,uhs, Left chStr = aA85;4CB)(1-vwgr, Right chStr = efjWGFDPJT'Skcypb.

chStr = e, Frequency = 270, Code = 1110, Next chStr = fjWGFDPJT'Skcypb, Left chStr = null, Right chStr = null.

chStr = efjWGFDPJT'Skcypb, Frequency = 572, Code = , Next chStr = , Left chStr = e, Right chStr = fjWGFDPJT'Skcypb.

chStr = f, Frequency = 71, Code = 111100, Next chStr = jWGFDPJT'Sk, Left chStr = null, Right chStr = null.

chStr = fjWGFDPJT'Sk, Frequency = 144, Code = , Next chStr = cypb, Left chStr = f, Right chStr = jWGFDPJT'Sk.

chStr = j, Frequency = 1, Code = 111101000000, Next chStr = W, Left chStr = null, Right chStr = null.

chStr = jW, Frequency = 2, Code = , Next chStr = G, Left chStr = j, Right chStr = W.

chStr = W, Frequency = 1, Code = 111101000001, Next chStr = P, Left chStr = null, Right chStr = null.

 $chStr = jWG \;,\; Frequency = 4,\; Code = ,\; Next\; chStr = FDPJ,\; Left\; chStr = jW,\; Right\; chStr = G.$ 

chStr = G, Frequency = 2, Code = 11110100001, Next chStr = 8, Left chStr = null, Right chStr = null.

chStr = jWGFDPJ, Frequency = 8, Code = , Next chStr = T', Left chStr = jWG, Right chStr = FDPJ.

chStr = F, Frequency = 1, Code = 111101000100, Next chStr = D, Left chStr = null, Right chStr = null.

 $chStr = FD \;, \; Frequency = 2, \; Code = , \; Next \; chStr = PJ, \; Left \; chStr = F, \; Right \; chStr = D.$ 

chStr = D, Frequency = 1, Code = 111101000101, Next chStr = C, Left chStr = null, Right chStr = null.

chStr = FDPJ, Frequency = 4, Code =, Next chStr = ;4CB, Left chStr = FD, Right chStr = PJ.

chStr = P, Frequency = 1, Code = 111101000110, Next chStr = J, Left chStr = null, Right chStr = null.

chStr = PJ, Frequency = 2, Code = , Next chStr = jW, Left chStr = P, Right chStr = J.

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chStr = J \;, \; Frequency = 1, \; Code = 111101000111, \; Next \; chStr = F, \; Left \; chStr = null, \; Right \; chStr = null. \\ chStr = jWGFDPJT' \;, \; Frequency = 18, \; Code = , \; Next \; chStr = S, \; Left \; chStr = jWGFDPJ, \; Right \; chStr = T'. \\ chStr = T \;, \; Frequency = 5, \; C
```

#### **Test 1:**

On the eighty fifth day of his unlucky streak,
Santiago takes his skiff into the Gulf Stream,
sets his lines and by noon, has his bait taken by a big fish
that he is sure is a marlin. Unable to haul in the great marlin,
Santiago is instead pulled by the marlin,
and two days and nights pass with Santiago holding onto the line.
Though wounded by the struggle and in pain,
Santiago expresses a compassionate appreciation for his adversary,
often referring to him as a brother.
He also determines that, because of the fish's great dignity,
no one shall deserve to eat the marlin.
On the third day, the fish begins to circle the skiff.

# **Test 1 Compress:**

### **Test 1 De Compress:**

On the eighty fifth day of his unlucky streak, Santiago takes his skiff into the Gulf Stream, sets his lines and by noon, has his bait taken by a big fish that he is sure is a marlin. Unable to haul in the great marlin, Santiago is instead pulled by the marlin, and two days and nights pass with Santiago holding onto the line. Though wounded by the struggle and in pain, Santiago expresses a compassionate appreciation for his adversary, often referring to him as a brother. He also determines that, because of the fish's great dignity, no one shall deserve to eat the marlin. On the third day, the fish begins to circle the skiff.

#### Test 2:

He makes a new harpoon by strapping his knife to the end of an oar to help ward off the next line of sharks; five sharks are slain and many others are driven away. But the sharks keep coming, and by nightfall the sharks have almost devoured the marlin's entire carcass, leaving a skeleton consisting mostly of its backbone, its tail, and its head. Santiago knows that he is destroyed and tells the sharks of how they have killed his dreams.

## **Test 2 Compressed:**

 

# **Test 2 De\_Compressed:**

He makes a new harpoon by strapping his knife to the end of an oar to help ward off the next line of sharks; five sharks are slain and many others are driven away. But the sharks keep coming, and by nightfall the sharks have almost devoured the marlin's entire carcass, leaving a skeleton consisting mostly of its backbone, its tail, and its head. Santiago knows that he is destroyed and tells the sharks of how they have killed his dreams.