**1. Write an algorithm to find a number is palindrome or not.**

Input:

1.Let us consider n is number.

2.We have to find the reverse of the number and compare with n.

3.The reverse number and the n are equal to each other then n is palindrome.

Body:

4.copy n value to another variable let x.

5.we have to apply mod to n by 10, then we get the ones place digit.

6.initially reverse variable is 0.then multiply reverse with 10 and add once place to it.

7.then n is becomes n divided by 10 value after divided by 10.

8.repeat 5,6,7 steps until equal to zero.

9.at the last we have reverse of n value in the reverse variable.

Output:

10.compare x value and the reverse value if both are same then given number is palindrome

11.if not it is not a palindrome number.

**2. Write an algorithm for generating anagrams for user entered input.**

Input:

1.Take a string as input.

Body:

2.Take the first char from the string,and form the all possible words with the remaining char.

3.After forming the words check their meaning.

4.If it has meaning then it is consider as the anagram of that string.

5.repeat step 2,3,4 with next char as a first char in the string.

Output:

6.which are having the meaning in the all generated words those are the anagrams of the given string.

**3. Write an algorithm for binary search.**

Input:

1.Let us consider we have n number of elements and an element to find the index in the list.

2.we are find by dividing n by 2 then compare the element which is in that index.

3.At last if found element then search is success else it is not.

Body:

4.list should be in sorting order.

5.Let x is the searching element then compare it with middle element if it match then we got the index.

6.if the middle value is less than the x then x iis lie in right half list after the mid element.then do step 5.

7.else x lie in left half list, then perform step 5 until mid point value equal to the x..

Output:

8.If x matches element found the index and search is success, else x is not present in the list.

**4.Calling a friend on the phone.**

Input:

1.your friend phone number.

Body :

2.enter the number and press call button.

3.if busy,then cut the call,wait 5 min, repeat step 2.

4.if call not connect then send a message.

5.if no answer for your call,then wait 10 min,repeat step 2.

6.talk to your friend.

Output:

7. Connect call or leave a message.