Problem 1:

A Company Selenia is planning a big sale at which they will give their customers a special promotional discount. Each customer that purchases a product from the company has a unique customerID numbered from 0 to N-1. Andy the marketing head of the company has selected the bill amounts of the N customers for the promotional scheme. The discount will be given to customers whose bill amounts are perfect squares. The customers may use this discount on a future purchase.

Write an algorithm to help Andy find the number of customers that will be given discounts. Input: The first line consists of an integer numOfCust, representing the number of customers whose bills are selected for the promotional discount (N). The second line consists of N space-separated Integers bill1, bill2, bill3.. representing the bill amounts of the N customers selected for the promotional discount.

Input:
7
10 20 16 25 30 40 36

Output:
3

Problem 2:

You are given a list of integers and integer k. Write an algorithm to find the number of elements in the list which are strictly less than k. Input: The first line of Input consists of two space-separated integers - size and num K, representing the number of elements in the list (N) and the integer to be compared (K). The second line consists of N space-separated integers - element[0], element[1].. element[N-1] representing the list of integers.

Input:
5 40
10 20 30 40 50

Output:
3

Problem 3:
Given a sentence of words, we need to reverse it with 3 variations.

Input:
hello how are you

Output:
uoy era woh olleh (reverse the sentence literally)
olleh woh era uoy (reverse each word in the sentence)
you are how hello (reverse the order of words in the sentence)