Array

An array is a data type that saves multiple variables with same type through a single name by use of an index.

An index is an integer parameter with use of the subscript operator([]). In C++ index begins with 0 and finishes with size of array – 1 elements.

Index is used to assign to ith -1 element of array.

Its structure is :

data_type name_of_array [size_of_array];

```cpp
#include <iostream>
using namespace std;


int main() {
    int a [ 5 ] ; //array with five elements
    for ( int i = 0; i < 5; i++)
    {
        cin>> a [ i ] ;   // reading each element of array
    }
    for (int i = 0; i < 5; i++)
    {
        cout<< a[ i ] << " " ;   // printing array
    }
    return 0;
}


5
6
3
4
1
5 6 3 4 1
Press any key to continue . . .
```

Exercise: reading & printing arrays

You are given N integer numbers in a line. Print out integers in different line in this way:
even, odd, positive, negative.

array.in
10
5 3 8 1 -9 10 -2 7 4 -6

array.out
8 10 -2 4 -6
5 3 1 -9 7
5 3 8 1 10 7 4
-9 -2 -6