Task No 01: Create an array A of length 10 of integer values ranging from 1 to 50.

1. Find all pairs of elements whose sum is 25.

2. Find the number of elements of A which are even, and the number of elements of A which are odd.

3. Write a procedure which finds the average of the value of A.

Solution:

Output:

Task No 02: Write a C# program that utilizes a 1D array to implement a simple inventory management system.

1: Inventory Setup

Create an array to store inventory items and initialize the item count.

2: Main Menu Loop

Implement the main menu loop for the inventory management system. This loop will repeatedly display options to the user until they choose to exit.

3: Add Item

Implement the functionality to add an item to the inventory. Ask the user for the name of the item to add and add it to the inventory array.

4: Remove Item

Implement the functionality to remove an item from the inventory. Ask the user for the name of the item to remove and remove it from the inventory array if found.

5. Search Item

Implement the functionality to search for an item in the inventory. Ask the user for the name of the item to search for and display whether it's in the inventory or not.

6: Display Inventory

Implement the functionality to display the current items in the inventory.

7: Exit Program

Implement the functionality to exit the inventory management system when the user chooses to exit.

Solution:

Output:

Task No 03: Write a program which input 2 matrix of user defined rows and columns and perform following operation:

a. Display/Print as a Matrix

b. Addition of Matrix

c. Subtraction of Matrix

d. matrix multiplication

e. Determinant

f. Inverse

Solution:

Output: