Day 49 coding Statement : Given 2 integer arrays X and Y of same size. Consider both arrays as vectors and print the minimum scalar product (Dot product) of 2 vectors.

Sample input 1 :

4

1 2 3 4

5 6 7 8

Sample output 1 :

60

Explanation :

(4*5 + 3*6 + 2*7 + 1*8) = 60

Sample input 2 :

4

-1 -2 -3 -4

5 6 -7 -8

Sample output 2 :

-17

Explanation :

(-1*-8 + -2*-7 + -3*6 + -4*5) = -17

```java
import java.util.Arrays;
import java.util.Scanner;

public class RatanPrajapati_day49 {
    static void swap(int arr[], int start, int end) {
        int temp = arr[start];
        arr[start] = arr[end];
        arr[end] = temp;
    }

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
```

```
        int n = sc.nextInt();
        int vec1[] = new int[n];
        for (int i = 0; i < n; i++) {
            vec1[i] = sc.nextInt();
        }
        int vec2[] = new int[n];
        for (int i = 0; i < n; i++) {
            vec2[i] = sc.nextInt();
        }
        Arrays.sort(vec1);
        Arrays.sort(vec2);
        for (int i = 0; i < n / 2; i++) {
            swap(vec2, i, n - i - 1);
        }
        int sum = 0;
        for (int i = 0; i < n; i++) {
            sum += vec1[i] * vec2[i];
        }
        System.out.println(sum);

    }
}
```