Problem Set 3 Exercise #03: Max Difference in Adjacent Elements

Reference: Lecture 6 notes

Learning objective: One-dimensional array

Estimated completion time: 20 minutes

Problem statement:

Write a program **PS3_Ex03_MaxDifference.java** to read *n* integers into an array **arr** and find out the biggest difference between adjacent array elements (i.e. between **arr[i]** and **arr[i+1]**).

For example, in array { 1, 4, 3, 6, 2 }, the biggest difference in adjacent elements is 4 (= 6 - 2).

Your program should contain a static method

```
int maxDifference(int[] arr)
```

that returns the biggest difference between adjacent array elements.

Sample run #1:

```
Enter the size of the array: 5
Enter 5 elements: 1 4 3 6 2
Max difference = 4
```

Sample run #2:

```
Enter the size of the array: 2
Enter 2 elements: 4 62
Max difference = 58
```