Question **1**

Correct

Marked out of 5.00

Write a Java program to create a method that takes an integer as a parameter

and throws an exception if the number is odd.

Sample input and Output:

```
82 is even.
Error: 37 is odd.
```

Fill the preloaded answer to get the expected output.

For example:

Result
82 is even. Error: 37 is odd.

Answer: (penalty regime: 0 %)

Reset answer

```
1
2  class OddNumberException extends Exception {
3      public OddNumberException(String message) {
4          super(message);
5      }
6  }
7
8  public class Prog {
9      public static void main(String[] args) {
10         int n = 82;
11         trynumber(n);
12         n = 37;
13         trynumber(n);
14     }
15
16     public static void trynumber(int n) {
17         try {
18             checkEvenNumber(n);
19             System.out.println(n + " is even.");
20         } catch (OddNumberException e) {
21             System.out.println(e.getMessage());
22         }
23     }
24
25     public static void checkEvenNumber(int number) throws OddNumberException {
26         if (number % 2 != 0) {
27             throw new OddNumberException("Error: "+ number + " is odd.");
28         }
29     }
30 }
31
```

	Expected	Got	
✓	82 is even. Error: 37 is odd.	82 is even. Error: 37 is odd.	✓

Passed all tests! ✓

Question **2**

Correct

Marked out of 5.00

In the following program, an array of integer data is to be initialized.
During the initialization, if a user enters a value other than an integer, it will throw an InputMismatchException exception.
On the occurrence of such an exception, your program should print "You entered bad data."
If there is no such exception it will print the total sum of the array.

/* Define try-catch block to save user input in the array "name"
If there is an exception then catch the exception otherwise print the total sum of the array. */

Sample Input:

3
5 2 1

Sample Output:

8

Sample Input:

2

1 g

Sample Output:

```
You entered bad data.
```

For example:

Input	Result
3 5 2 1	8
2 1 g	You entered bad data.

Answer: (penalty regime: 0 %)

Reset answer

```
import java.util.Scanner;
import java.util.InputMismatchException;
public class prog{
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int length = sc.nextInt();
        int[] name = new int[length];
        int sum = 0;
        try {
            for (int i = 0; i < length; i++) {
                name[i] = sc.nextInt();
            }
            for (int num : name) {
                sum += num;
            }
            System.out.println(sum);
        } catch (InputMismatchException e) {
            System.out.println("You entered bad data.");
        } finally {
            sc.close();
        }
    }
}

```

	Input	Expected	Got	
✓	3 5 2 1	8	8	✓
✓	2 1 g	You entered bad data.	You entered bad data.	✓

Passed all tests! ✓

Question **3**

Correct

Marked out of 5.00

Write a Java program to handle ArithmeticException and ArrayIndexOutOfBoundsException.

Create an array, read the input from the user, and store it in the array.

Divide the 0th index element by the 1st index element and store it.

if the 1st element is zero, it will throw an exception.

if you try to access an element beyond the array limit throws an exception.

Input:

5

10 0 20 30 40

Output:

java.lang.ArithmeticException: / by zero
I am always executed

Input:

3
10 20 30

Output
java.lang.ArrayIndexOutOfBoundsException: Index 3 out of bounds for length 3
I am always executed

For example:

Test	Input	Result
1	6 1 0 4 1 2 8	java.lang.ArithmeticException: / by zero I am always executed

Answer: (penalty regime: 0 %)

```
import java.util.*;

public class ExceptionHandling{
    public static void main(String[] args) {
        Scanner obj= new Scanner(System.in);
        try {
            int n = obj.nextInt();
            int[] arr = new int[n];
            for (int i = 0; i < n; i++) {
                arr[i] = obj.nextInt();
            }
            int result = arr[0] / arr[1];
            System.out.println(arr[3]);
        } catch (ArithmeticException e) {
            System.out.println("java.lang.ArithmeticException: / by zero");
        } catch (ArrayIndexOutOfBoundsException e) {
            System.out.println("java.lang.ArrayIndexOutOfBoundsException: " + e.getMessage());
        } finally {
            System.out.println("I am always executed");
        }
    }
}

```

	Test	Input	Expected	Got	
✓	1	6 1 0 4 1 2 8	java.lang.ArithmeticException: / by zero I am always executed	java.lang.ArithmeticException: / by zero I am always executed	✓
✓	2	3 10 20 30	java.lang.ArrayIndexOutOfBoundsException: Index 3 out of bounds for length 3 I am always executed	java.lang.ArrayIndexOutOfBoundsException: Index 3 out of bounds for length 3 I am always executed	✓

Passed all tests! ✓

◄ Lab-09-MCQ

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The “Nambiar Number” Generator ►