```java
//TestingAE.java
import java.util.Scanner;
public class TestingAE {
public static void main(String[] args) {
	Scanner input = new Scanner(System.in);
	int num, den, outcome;

	System.out.print("Enter the numerator value: ");
	num = input.nextInt();
	System.out.print("Enter the denominator value: ");
	den = input.nextInt();
	outcome = num / den;
	System.out.println(num + " / " + den + " = " + outcome);
	}
}
```

```java
//TestingAE2.java

import java.util.Scanner;
public class TestingAE2 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		int numerator, denominator, result;

		System.out.print("What is the numerator? ");
		numerator = input.nextInt();

		System.out.print("What is the denominator? ");
		denominator = input.nextInt();
		if(denominator == 0)
			System.out.println("Division by 0 is not allowed");

		else
		{
			result = numerator / denominator;
			System.out.println(numerator + " / " + denominator + " = " +
result);
		}
	}
}
```

```java
//TestingAE3.java
import java.util.Scanner;
public class TestingAE3 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		int num, den, outcome;
		System.out.print("What is the numerator value? ");

		num = input.nextInt();

		System.out.print("What is the denominator value? ");
		den = input.nextInt();

		try {
			outcome = num / den;
			System.out.println(num + " / " + den + " = " + outcome);
		}

		catch(ArithmeticException m) {
			// System.out.println("You cannot divide by zero");
			System.out.println(m.getMessage());

		}
	}
}
```

```java
//InitializationTest.java
import java.util.Scanner;
public class InitializationTest {
	public static void main(String[] args) {
		int test_value ;
		// test_value = 5; // one solution


		Scanner input = new Scanner(System.in);
		try {
			System.out.print("Enter a number: ");
			test_value = input.nextInt();
			}

		catch(Exception e)
		{
			System.out.println("Exception occurred");
			 //x = 7;  // This is one solution
		}

		System.out.println("Number is: " + test_value);

		}
}
```

```java
//ExceptionsTest.java
import java.util.*;

public class ExceptionsTest {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		int num, den, result;
		try {
			System.out.print("What is the numerator? ");
			num = input.nextInt();

			System.out.print("What is the denominator? ");
			den = input.nextInt();

			result = num / den;

			System.out.println("The result is: " + result);
			}

		catch(ArithmeticException m)
		{
			System.out.println(m.getMessage());
		}

		catch(InputMismatchException mistake)
		{
			System.out.println("You did not enter the correct data type");
		}
	}
}
```

```java
//ExceptionsTest2.java
import java.util.*;
public class ExceptionsTest2 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);

		int numerator, denominator, result;
		try {
			System.out.print("Enter numerator >> ");
			numerator = input.nextInt();
			System.out.print("Enter denominator >> ");
			denominator = input.nextInt();
			result = numerator / denominator;
			System.out.println(numerator + " / " + denominator + " = " +
result);
			}

		catch(Exception mistake) {
			System.out.println("Invalid Operation");
		}
	}
}
```

```java
//ItemList.java
public class ItemList {
	private static final double[] value = {12.99, 27.56, 34.56, 45.89};
	public static void displayPrice(int x) throws IndexOutOfBoundsException
	{
		System.out.println("Value: " + value[x]);
	}
}
```

```java
//ItemListTest.java

import java.util.*;
public class ItemListTest
{
	public static void main(String[] args)
	{
		int item;
		Scanner input = new Scanner(System.in);
		System.out.print("Number?");
		item = input.nextInt();
		try
		{
			ItemList.displayPrice(item);
		}
		catch(IndexOutOfBoundsException e)
		{
			System.out.println("Exception");
		}
	}
}
```

```java
//WrongArraySubscript.java

import java.util.*;
public class WrongArraySubscript
{
   public static void main(String[] args)
   {
      String[] items = {"Printer", "Scanner", "Car", "Bus"};
      Scanner keyboard = new Scanner(System.in);
      int number;
      try
      {
         System.out.println("Enter a number, and I will display a name ");
         number = keyboard.nextInt();
         System.out.println("Item is " + items[number]);
      }

//      catch(ArrayIndexOutOfBoundsException error)
      catch(Exception error)
      {
         System.out.println("Not in the range.");
      }
   }
}
```

```java
//CategoryException.java
public class CategoryException extends Exception
{
       public static final char[] itemClass = {'A', 'B', 'C', 'D', 'E'};



   public CategoryException(String string)
   {
      super(string);


   }

}
```

```java
//TestCategory.java
import java.util.Scanner;
public class TestCategory
{
   public static void main(String args[]) throws Exception
   {
      int[] item_id = {54012, 76422, 67643, 27026, 66543,
               99201, 92027, 20270};
      char[] item_class = new char[8];
      String item_string = new String();

      String input_value;
      int flag = 0;


      Scanner input = new Scanner(System.in);

      for(int x = 0; x < item_id.length; ++x)
      {
         System.out.println("Enter the class for the item# " + item_id[x]);
         System.out.println("It has to be one of the following: A, B, C, D or E");


         input_value = input.nextLine();
         item_class[x] = input_value.charAt(0);
         try {
                flag = 0;

                for(int y = 0; y < CategoryException.itemClass.length; ++y) {
                      if(item_class[x] == CategoryException.itemClass[y])
                            flag = 1;

                }
             if(flag == 0)
             {
```

```
                item_string = "You entered an invalid class";
                  throw(new CategoryException(item_string));
               }
                }
           catch(CategoryException e)
           {
                System.out.println(e.getMessage());

              item_class[x] = 'I';
           }
      }

      for(int x = 0; x < item_id.length; ++x)
         System.out.println("Item # " + item_id[x] + ", Class " + item_class[x]);



   }
}
```