Homework Problem: Error Handling

1. Create a console application that will do the following:
   a. Create a Test class that will run static Methods 1, 2, 3, and 5 in a Try block.
   b. Method 1 will divide 1 integer variable by another and store the result in a third integer variable.
      1. Use Console.ReadLine and Console.WriteLine to process user data.
      2. Provide a try catch block to check for a DivideByZero condition.
   c. Method 2 shows how to catch in a try catch block string data being put into an integer variable.
   d. Method 3 has a try block that calls Method 4 and a catch block that looks for string input problems in an integer processing situation.
   e. Method 4 has code that has string data being put into an integer variable.
   f. Create a custom error exception class that provides additional information about string errors. Name your custom error exception StringErrorException.
   g. Method 5 has a similar try block to Method 4 that has string data being put into an integer variable. In the catch block catch the string error than throw you custom StringErrorException.
   h. Your Main procedure should run in a try block Methods 1,2, 3 and 5. In the catch block for this area catch the following exceptions: divide by zero, your custom string exception, and a general catch exception.
   i. Use in your Main try catch area a finally area that writes to the user "End of Error Handling Exercise.

2. Optional Exercise:
   a. Create an optional method that is called from the Main Try block.
   b. For this method create the following:
      1. An integer variable that is assigned the maximum integer value.
      2. A second integer variable that is assigned the maximum integer value.
      3. A third integer variable that hold the results of summing the first 2 integer variables.
      4. In your try block add the first 2 integer variables and hold the result in your third variable.
      5. Use a catch block that checks for overflow exceptions.

3. Test your work and then save your program.