```
//*************************************************
// Division Program
// Divisend and divisor are prompted for and read.
// If divisor is 0, division is not performed;
// otherwise, division is performed and result is printed.

#include <iostream>
using namespace std;

int main()
{
  int dividend;
  int divisor;
  int result;
  cout << "Enter dividend and divisor" << endl;
  cin >> dividend >> divisor;

  if (divisor != 0)
  {
    result = dividend / divisor;
    cout << "Result is " << result << endl;
  }
  else
  {
    cout << "Division by zero is not allowed." << endl;
    result = 9999;
  }
  return 0;
}
```

```
// Program Area demonstrates stream testing
#include <iostream>
#include <fstream>
using namespace std;

int main()
{
    int side1;         // one side of a rectangle
    int side2;         // the other side of a rectangle
    ifstream inData;   // file stream
    int area;          // area of rectangle

    inData.open("myData.dat");
    if (!inData)
    {
        cout  << "Input file not found."  << endl;
        return 1;
    }
    inData >> side1 >> side2;
    if (!inData)
    {
        cout  << "Data format incorrect.";
        return 2;
    }
    area = side1 * side2;
    cout  << "Area is "  << area  << endl;
    return 0;
}

CONTENTS OF DATA FILE myData.dat
5 5
```

```
The lowest value of the three is printed with an appropriate message.
Assumption:  YOu are to create a data file with three scores and that the three scores are unique.*/


#include <iostream>

using namespace std;

int main ()
{
    int  test1Score;
    int  test2Score;
    int  test3Score;

   /* cout  << "Enter score for test 1; press return." << endl;
    cin  >> test1Score;
```

```
    cout  << "Enter score for test 2; press return."  << endl;
    cin  >> test2Score;
    cout  << "Enter score for test 3; press return."  << endl;
    cin  >> test3Score;*/

    /*WRITE CODE TO OPEN AND READ DATA FROM FILE*/
    /*VALIDATE THE INPUT FILE STREAM TO CHECK IF DATA FILE HAS BEEN
    OPENED AND THAT THE DATA MATCHES THE VARIABLES IN WHICH THEY WILL BE STORED*/


    cout  << "The three test scores are: "  << endl;
    cout  << test1Score  << endl;
    cout  << test2Score  << endl;
    cout  << test3Score  << endl;

    /*WRITE LOGICAL EXPRESSIONS IE., IF-THEN-ELSE STATEMENTS TO DETERMINE LOWEST SCORE*/









    system("PAUSE");

    return 0;
}
```

```
#include<iostream>
using namespace std;

int main()
{

    int grade;
    char letterGrade;

    cout<<"Please enter a raw score for a letter grade: ";
    cin>>grade;

    if(cin)
    {
    if(grade>=90 && grade<=100)
        letterGrade='A';
    else if (grade>100)
        {
        cout<<"Faulty data....goodbye"<<endl;
        return 1;
        }
    else if(grade>=80 && grade<=89)
    letterGrade='B';
    else if(grade>=70 && grade<=79)
    letterGrade='C';
    else if(grade>=60 && grade<=69)
    letterGrade='D';
    else if(grade<=59)
    letterGrade='F';
    cout<<"For a score of "<<grade<<" the Letter Grade is "<<letterGrade<<endl;

    }
    else
    cout<<"INVALID DATA....Goodbye"<<endl;

    system("PAUSE");
    return 0;
}
```

```
//****************************************************************
// Notices program
// This program determines (1) a student's average based on three
// test scores and (2) the student's passing/failing status
//****************************************************************
#include <iostream>
#include <iomanip>    // For setprecision()
```

```
using namespace std;

int main()
{
    float average;        // Average of three test scores
    long  studentID;      // Student's identification number
    int   test1;          // Score for first test
    int   test2;          // Score for second test
    int   test3;          // Score for third test
    bool  dataOK;         // True if data is correct

    cout << fixed << showpoint;             // Set up floating pt.
                                            //   output format
    // Get data

    cout << "Enter a Student ID number and three test scores:"
         << endl;
    cin >> studentID >> test1 >> test2 >> test3;
    cout << "Student number: " << studentID << "  Test Scores: "
         << test1 << ", " << test2 << ", " << test3 << endl;

    // Test data

    if (test1 < 0 || test2 < 0 || test3 < 0)
        dataOK = false;
    else
        dataOK = true;

    if (dataOK)
    {
        // Calculate average

        average = float(test1 + test2 + test3) / 3.0;

        // Print message

        cout << "Average score is "
             << setprecision(2) << average << "--";
        if (average >= 60.0)
        {
            cout << "Passing";                // Student is passing
            if (average < 70.0)
                cout << " but marginal";      // But marginal
            cout << '.' << endl;
        }
        else                                  // Student is failing
            cout << "Failing." << endl;
    }
    else                                      // Invalid data
        cout << "Invalid Data:  Score(s) less than zero." << endl;
    system ("PAUSE");
    return 0;
}
```