CS0007 Project 4 Due: November 15, 2005

Write a class to represent a Die, a fair 6 sided cube with a different number of pips on each of the six sides ranging from 1 to six. This class will a have constructor and the following three methods:

1. toss() – return type is void.
2. getPips() – return type int.
3. toString() – return type String.

The constructor will call toss() to assign an initial random value for the face of the die. The class also has one data member, face, an int that can take a value from 1 to 6. The value of face can only be changed or accessed by calling the class methods shown above. Method toss() must randomly set the value of face (the number of pips on the side) by using a random number generator.

You also need to write an application that will simulate the throw of a pair of dice and count the number of the sum of the throws (2 through 12) and store these count values in an array. Your application will count the number of twos, threes, fours, etc. up to twelves, and store these counts in an array.

You application must print out the result of each die per toss, and the sum of the pair of dice. After tossing the dice for 100 throws print out the total counts for all possible values.

Document both your die class and your application by inserting comments in your code, including pre-conditions and post-conditions for each method, your name section number, and assignment number. Turn in your program according to the usual submission guidelines.