**Exceptions and File Reading Test**

**Instructions:** Write code in the BlueJay IDE that meets the requirements below. This is an assessment of what you know how to do, not an assessment of how good you can access resources, therefore you may not use notes, internet, etc...

**Question 1: Exceptions (70 points)**

Part a: write a class that represents FullStomachException. The class should inherit from Exception and doesn’t require any additional instance data and/or methods beyond a default constructor.

Part b: write a class that represents a person and their digestive processes. There should be appropriate instance data, constructors and methods. Include an eat() method that takes a single parameter for the quantity of the food being eaten in ounces and a boolean for whether the food is spicy. The **partial** method header should read:

public void eat(int ounces, boolean spicy) …

Inside the eat method, have an exception if the person is trying to exceed the capacity of their stomach. Make sure the method appropriately throws a new exception and declares its intent in the method header.

Part c: write a main class that simulates the person eating at a buffet. They should make several trips to the buffet and each trip should appropriately handle the possibility that a FullStomachException could occur. If such an exception occurs, no more trips to the buffet line should occur, and the exception should be appropriately handled.

**Question 2: File input and output (30 points)**

Part a: read from the posted ***numbers.dat*** file and calculate the sum of all numbers contained in the file.

Part b: write the sum out to a file named ***sum.dat***.

Part c: read the answer from ***sum.dat*** and print it to the screen as follows: “the sum is: x”