JAVA Programming Assignment

Exception Handling

1. Write a program to input the size of a one-dimensional integer array at run-time. Also input a series of non-zero, integer values that are stored in the one-dimensional array.
   - Create an exception handler for numbers that are not in an integer format. Again ask user to input value when there is an error in the input string, so that the user is always given another opportunity for inputting a number in the correct format.
   - Create an exception handler for the array index being out of bounds.
   - Create an exception handler for an arithmetic exception.
   - Calculate and output the arithmetic mean of the numbers in the array.

2. Write a program that prompts the user to enter the length in feet and inches and outputs the equivalent length in inches and in centimeters. If the user enters a negative number, nondigit number or numbers not in correct feet, inch format, throw and handle an appropriate exception and prompt the user to enter another set of numbers.

3. Write a program that prompts the user to enter time in 12-hour notation. The program then outputs the time in 24-hour notation. Your program must contain three exception classes: InvalidHrExcep, InvalidMinExcep, and InvalidSecExcep. If the user enters an invalid value for hours, then the program should throw and catch an InvalidHr object. Similar conventions for the values of minutes and seconds.