**Questions and Exercises**

**Questions**

1. Is the following code legal?
2. try {
4. } finally {
6. }

Yes

1. What exception types can be caught by the following handler?
2. catch (Exception e) {
4. }

All Exception

What is wrong with using this type of exception handler?

1. Is there anything wrong with the following exception handler as written? Will this code compile?
2. try {
3. } catch (Exception e) {
5. } catch (ArithmeticException a) {
7. }

Yes

1. Match each situation in the first list with an item in the second list.
   1. int[] A;  
      A[0] = 0;
   2. The JVM starts running your program, but the JVM can't find the Java platform classes. (The Java platform classes reside in classes.zip or rt.jar.)
   3. A program is reading a stream and reaches the end of stream marker.
   4. Before closing the stream and after reaching the end of stream marker, a program tries to read the stream again.
   5. \_\_error
   6. \_\_checked exception
   7. \_\_compile error
   8. \_\_no exception

a – 7

b – 5

c – 8

d - 6

**Exercises**

* 1. Add a readList method to [ListOfNumbers.java](https://docs.oracle.com/javase/tutorial/essential/exceptions/examples/ListOfNumbers.java). This method should read in int values from a file, print each value, and append them to the end of the vector. You should catch all appropriate errors. You will also need a text file containing numbers to read in.
  2. Modify the following cat method so that it will compile.
  3. public static void cat(File file) {
  4. RandomAccessFile input = null;
  5. String line = null;
  6. try {
  7. input = new RandomAccessFile(file, "r");
  8. while ((line = input.readLine()) != null) {
  9. System.out.println(line);
  10. }
  11. return;
  12. } finally {
  13. if (input != null) {
  14. input.close();
  15. }
  16. }

}

[ListOfNumbers.java](https://docs.oracle.com/javase/tutorial/essential/exceptions/examples/ListOfNumbers.java)

import java.io.\*;

import java.util.List;

import java.util.ArrayList;

public class ListOfNumbers {

private List<Integer> list;

private static final int SIZE = 10;

public ListOfNumbers () {

list = new ArrayList<Integer>(SIZE);

for (int i = 0; i < SIZE; i++)

list.add(new Integer(i));

}

public void writeList() {

PrintWriter out = null;

try {

System.out.println("Entering try statement");

out = new PrintWriter(new FileWriter("OutFile.txt"));

for (int i = 0; i < SIZE; i++)

out.println("Value at: " + i + " = " + list.get(i));

} catch (IndexOutOfBoundsException e) {

System.err.println("Caught IndexOutOfBoundsException: " +

e.getMessage());

} catch (IOException e) {

System.err.println("Caught IOException: " + e.getMessage());

} finally {

if (out != null) {

System.out.println("Closing PrintWriter");

out.close();

} else {

System.out.println("PrintWriter not open");

}

}

}

}