Assignment 1

• create as simple scheduler (a "TODO" list)
  − data are stored in a file
  − manipulation via parameters of the command line
    • java balicek.Todo -a priority message
      − adds the message with given priority
      − priority is integer (can be even negative)
    • java balicek.Todo -l
      − prints out the messages sorted by priority decreasingly
    • java balicek.Todo -r
      − prints out the messages sorted by priority increasingly
    • java balicek.Todo -d
      − interactive
      − prints out all messages (formatted as order number then message)
      − asks the user which message should be deleted
      − deletes the message
Assignment 2

• Create a method that returns the biggest value in an array
  - create a multi-threaded implementation
    • a) use the threads directly
    • b) use an executor
    • c) use data streams

• Create a “synchronized” counter for long
  - 2 methods
    • long get() - returns the counter value
    • void inc() - increases the counter value
Tests...
Test 1

• What is printed out

```java
public class Test01 {
    private static java.util.Random rnd = new java.util.Random();

    public static void main(String[] args) {
        StringBuffer word = null;
        switch (rnd.nextInt(2)) {
            case 1:  word = new StringBuffer('P');
            case 2:  word = new StringBuffer('G');
            default: word = new StringBuffer('M');
        }
        word.append('a');
        word.append('i');
        word.append('n');
        System.out.println(word);
    }
}
```

A  Pain or Gain
or Main,
differently
each start
B  always Pain
C  always Gain
D  always Main
E  something else
F  cannot be compiled
Test 1

• What is printed out?

```java
public class Greeter {
    public static void main (String[] args) {
        String greeting = "Hello world";
        for (int i = 0; i < greeting.length(); i++) {
            System.out.write(greeting.charAt(i));
        }
    }
}
```

A  Hello world  
B  nothing  
C  something else  

The example based on code from J. Bloch, N. Gafter: Java Puzzlers
public class Slasher {

    public static void main(String[] argv) {

        String fullClassName = "cz.cuni.mff.java.io.Slasher";

        String fileName =
            fullClassName.replaceAll(".", "/") + ".java";

        System.out.println("The class " + fullClassName +
            " must be in the file " + fileName);

    }
}

The example based on code from J. Bloch, N. Gafter: Java Puzzlers