

STUDY GUIDE 3: Errors and Decomposition

AP Computer Science – WHS Mulvaney

Name _____ Per _____

Resources

<u>Lecture Slides</u>	<u>Video Lectures</u>	<u>Textbook Section</u>
<ul style="list-style-type: none">- 1E: Types of Errors- 1F: Procedural Decomposition	<ul style="list-style-type: none">- Java 1.5: Programming Errors	<ul style="list-style-type: none">- 1.3: Program Errors
PracticeIt (Building Java Programs <u>4th Edition</u> , Chapter 1) <ul style="list-style-type: none">- (1E) Exercise: 1.2- (1F) Self Check: 1.22, 1.23, 1.25; Exercise: 1.7, 1.10, 1.16		

Lecture Notes: Types of Errors

Vocabulary

Syntax Error	
Logic Error	
Runtime Error	
Design Error	

Study Guide Questions

1. Why do we use the word “bug” to describe an error in programming?
2. How can we use procedural decomposition to help solve large problems?

Lecture Notes: Types of Errors

Vocabulary

Decomposition	
Flow of Control	

Task 1: A New Pattern

With your desk partner, write pseudocode in the space below that decomposes the pattern below.

A diagram of a triangle. The top edge is a horizontal dashed line with a '+' sign at each end. The two slanted edges are solid lines. The bottom vertex is formed by two solid lines meeting at a point.

Task 2 Tracing Control Flow

With your desk partner, trace the control flow of the program below and write the output in the space below.

```
public static void main(String args[]) {
    foo();
    bar();
}
```

```
public static void bar() {
    foo();
    System.out.println("bar");
    foo();
}
```

```
public static void foo() {
    System.out.println("foo");
}
```