

Name _____ Period _____

1. Refer to the code below,

```
//Assume nextLine( ) and nextInt( ) are static methods in  
//a class named Scanner that reads a String and an integer  
//from the keyboard.
```

```
Scanner rdr = new Scanner(System.in);  
String str = rdr.nextLine( );  
int j = rdr.nextInt( );  
  
try {  
    System.out.print( str.charAt(j) );  
} catch (StringIndexOutOfBoundsException e) {  
    System.out.print("Error: " + j);  
}
```

(a) What is the output of the code above, given the input below?

```
big mamma  
2
```

/1

(b) What is the output of the code above, given the input below?

```
big mamma  
22
```

/1

2. Refer to the code below,

```
//Returns the product of two integers represented as  
//strings. If either string is not a number, returns the other  
//number. If both are not numbers, returns 1.
```

```
public static int product(String str1, String str2) {  
    int prd = 1;  
  
    try {  
        prd*=Integer.parseInt(str1);  
    } catch (NumberFormatException) {  
        <*1>  
    }  
  
    try {  
        prd*=Integer.parseInt(str2);  
    } catch (NumberFormatException) {  
        <*1>  
    }  
}
```

<pre> <*1> } return prd; } </pre>	
(a) What should replace <*1> in the code above to make it do what the remarks suggest?	
	/1
(b) Assume <*1> has been filled in correctly. What is returned by product ("two", "5")?	
	/1
<p>3. What is output by the code to the right if the static method called test() encounters the following line of code? Assume the test signature includes throws NumberFormatException.</p> <pre> int j = Integer.parseInt("Two Thousand"); </pre>	<pre> try{ test(); } catch(NumberFormatException e) { System.out.println("Error with number format"); } catch(RuntimeException e) { System.out.println("Error"); } </pre>
	/1
<p>4. If the code designated by <*1> to the right does not throw any exceptions, which of the remaining code sections will execute?</p>	<pre> try { <*1> } catch(RuntimeException e) { <*2> } finally { <*3> } </pre>
	/1

5. Indicate the stack and the output for the code below.

Code	Stack	Output
<pre>public static void showMe(int arg) { if (arg < 10) { showMe(arg + 1); } else { System.out.print(arg + " "); } } public static void main(String args[]){ showMe(0) }</pre>		

6. Indicate the stack and the output for the code below

Code	Stack	Output
<pre>public static void whatsItDo(String str) { int len = str.length(); if (len > 1) { String temp = str.substring(0, len - 1); System.out.println(temp); whatsItDo(temp); } } public static void main(String args[]){ whatsItDo("WATCH") }</pre>		

7. Indicate the stack and the output for the code below

Code	Stack	Output
<pre>public static void puf(int n) { if(n == 1) { System.out.print("x"); } else if(n%2 == 0) //n is even { System.out.print("{"); puf(n-1); System.out.print("}"); } else //n is odd { System.out.print("<"); puf(n-1); System.out.print(">"); } } public static void main(String args[]){ puf(5); }</pre>		

8. Indicate the stack and the output for the code below

Code	Stack	Output
<pre>public static void sort(int[] data) { for (int j = 0; j < data.length - 1; j++) { int m = j; for (int k = j + 1; k < data.length; k++) { if (data[k] < data[m]) /* Compare values */ { m = k; } } int temp = data[m]; /* Assign to temp */ data[m] = data[j]; data[j] = temp; /* End of outer loop */ } } public static void main(String args[]){ int[] iArr = {1, 5, 3}; sort(iArr); }</pre>		

