Name(s) _____ Period _____ Date _____

[KEY] Extra Practice - Substrings

Check for Understanding

Consider the code segment below.

```
String str = "level nail";
System.out.println(str.substring(a,b) + str.substring(c));
```

Which values of **a**, **b**, and **c** will cause the program to output the word **"evil"**?

A. `a=1 b=3 c=8`

B. `a=0 b=2 c=7`

C. `a=1 b=2 c=8`

D. `a=1 b=3 c=7`

E. `a=2 b=4 c=9`

AP Exam Prep

Consider the following code segment:

```
String s1 = "California Golden Bears";
String s2 = s1.substring(11, 13) +  s1.substring(10, 11) + s1.substring(18) + "!";
```

What is the value of **s2** after the code executes?

A. `"Go Bears!"`

B. `"GoBears!"`

C. `" Gaa!"`

D. `"Go B!"`

E. `"Gol Bears!"`

Extra Practice

Do This: While traversing a file of phone numbers, you run into an issue where a few of the numbers start with `"+52"` instead of having an area code inside parentheses. These are international numbers for Mexico. Write pseudocode that reads a file of phone numbers one at a time. The output should match the table below depending on the phone number format.

Example Phone Number	Output	Note
(510) 555-1234	"US area code: 510"	Parentheses found, so output `"US area code: "` + numbers inside the parentheses.
+52-33-1234-5678	"International: 52"	Starts with "+" so output `"International: "` + the number between the `"+"` and the first `"-"`.
<123~45/67>	"Unknown"	Otherwise, output `"Unknown"`

```
While there are phoneNumbers

If phoneNumber indexOf "+" is 0
      dash = phoneNumber indexOf "-"
      countryCode = phoneNumber substring from 1 to dash
Print "International " + countryCode
Else if phoneNumber indexOf "(" >= 0 and phoneNumber indexOf ")" > 0
      leftParen = phoneNumber indexOf "("
      rightParen = phoneNumber indexOf ")"
      areaCode = phoneNumber substring from leftParen+1 to rightParen
      Print "US area code: " + areaCode
Else
      Print "Unknown"
```