

Name \_\_\_\_\_ Period \_\_\_\_\_

1. Refer to the code below to answer the following		
String s = "Get here Thanksgiving!"; String m = "er"; int j = 8, z = 99;		
(a) int k = s.indexOf(m); System.out.println(k);	5	
(b) int k = s.indexOf("T"); System.out.println(k);	9	
(c) char p = s.charAt(6); System.out.println(p);	r	
(d) int k = s.indexOf(z); System.out.println(k);	-1	
(e) int k = s.indexOf('g', j); System.out.println(k);	15	
(f) char p = s.charAt(z - 90); System.out.println(p);	T	
(g) int k = s.indexOf(m, 15); System.out.println(k);	-1	
(h) int k = s.indexOf(z + 2, 4); System.out.println(k);	5	
(i) boolean k = s.contains(m); System.out.println(k);	true	
(j) String s2 = " JAVA "; String k = "!" + s2.trim() + "!" System.out.println(k);	!JAVA!	
(k) System.out.println(m.compareTo(s));	30	
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2. The Alphabetize class below, alphabetizes three words. Consider the following examples. Write the Alphabetize class.

Values of Strings s1, s2, and s3 before	Values of s1, s2, and s3 after
String s1 = "cat"; String s2 = "car"; String s3 = "dog";	String s1 = "car"; String s2 = "cat"; String s3 = "dog";
String s1 = "dog"; String s2 = "cat"; String s3 = "car";	String s1 = "car"; String s2 = "cat"; String s3 = "dog";

```
public class Alphabetize{

    public static void main(String args[]){

        //check if s1 is last
        if(s1.compareTo(s2)>0 && s1.compareTo(s3)>0){
            temp = s3;
            s3 = s1;
            s1 = temp;
        }
        //check if s2 is last
        if(s2.compareTo(s1)>0 && s2.compareTo(s3)>0){
            temp = s3;
            s3 = s2;
            s2 = temp;
        }
        //compare s1 and s2
        if(s1.compareTo(s2)>0){
            temp = s2;
            s2 = s1;
            s1 = temp;
        }
        System.out.println(s1 + " " + s2 + " " + s3);

    }

}
```

3. Write an algorithm that could be used to count the number of times a string occurs in another string. Consider the examples below<sup>1</sup>. This algorithm requires that you incorporate a loop along with the substring() and length() methods.

String to search	String to find	Occurrences
BAAB	AA	1
AAAAA	AA	2
AABABABAA	ABA	2
ABBAABB	ABA	0

```
public class FindOccur{

    public static void main(String args[]){

        Solution 1

        int count = 0;
        int i = 0;
        int len = smallStr.length();

        while (i < largeStr.length() - len + 1)
        {
            if (smallStr.equals(largeStr.substring(i,
                i + len)))
            {
                count++;
                i += len;
            }
            else
            {
                i++;
            }
        }

        Solution 2

        int count = 0;
        String word = largeStr;
        int len = smallStr.length();
        int ind = word.indexOf(smallStr);

        while (ind != -1)
        {
            count++;
            word = word.substring(ind + len);
            ind = word.indexOf(smallStr);
        }

    }

}
```

<sup>1</sup> Adapted from the 2020 AP Computer Science A Exam

