NAME: _____

DATE: _____

TRISECT INSTITUTE

Job Oriented Java

J5B1

FUNCTIONS 2

Creating a function

```
public <return_type> <function_name>(<input>)
{
        return <output>;
}
```

Example 1: Create a function that takes string as input and returns the total number of character 'a' in this string.

- Function Name: getCount
- Return type: int
- Input: String

```
1   public int getCount(String str)
2   {
3      int count = 0;
4      int len = str.length();
5      for(int i = 0; i < len; i++)
6      {
7             char ch = str.charAt(i);
8             if(ch == 'a')
9             {
10                   count = count + 1;
11            }
12      }
13     return count;                        //value/output returned
14  }                                        //end function getCount()
```

Function Call	Return Value
getCount("aba")	2
getCount("def")	0

Problem 1	Read the function below and give return value of function calls given after.

```
1   public int fun1(String qstr)
2   {
3      int x = 0;
4      int y = qstr.length();
5
6      for(int i = 0; i < y; i++)
7      {
8             char ch = qstr.charAt(i);
9             if(ch == 't' && i < y - 2)
10            {
11                   x = x + 1;
12            }
13     }
```

```
14
15      return x;
16 }
```

Return value when:
fun1("trisect")
fun1("institute")

Using a function

To call and use a function we write:

variable = *<function-name>*(*<input value>*);

Example 2:

```
1   int count = getCount("aba");              //calling function defined in example 1
2   System.out.println("Count: " + count);
```

Output:

Count: 2

Example 3:

- **Create a function totalA() that takes an array of string as input and prints number of a's in each string of this array.**
- **Use getCount() function defined in Example1 to count a's in string.**

```
1   public void totalA(String[] arr)          //return type is void
2   {
3      int len = arr.length;
4      int count = 0;
5
6      for(int i = 0; i < len; i++)
7      {
8            String element = arr[i];
9            count = getCount(element);
10           System.out.println(count);
11     }
12 }                                           //end totalA()
13
14
15 public int getCount(String str)
16 {
17     int count = 0;
18     int len = str.length();
19
20     for(int i = 0; i < len; i++)
21     {
22           char ch = str.charAt(i);
23
24
```

```
25            if(ch=='a')
26            {
27                    count = count + 1;
28            }
29     }
30     return count;                        //value/output returned
31 }                                        //end getCount()
```

Function Call	Output
totalA({"a", "bcd", "aba"})	1 0 2

Problem 2	Read the function below and give output for function calls given after.

```
1  public void fun2(String[] arr)
2  {
3      int len = arr.length;
4      int z = 0;
5
6      String newStr = "#";
7
8      for(int i = 0; i < len; i++)
9      {
10            String str = arr[i];
11            z = fun1(str);                //calling fun1() from problem 1
12            newStr = newStr + z + "#";
13      }
14
15      System.out.println(newStr);
16 }
```

Output when:
fun2({"tip", "tiptap", "titfortat"})