

1. Tracing programs

Code	
<pre>public class Quiz1 { public static void main(String [] args) { String x = mystery("00"); } public static String mystery(String s) { s = s + "7"; return s; } }</pre>	<p>at end of main() x = "007"</p>
<pre>public class Quiz2 { public static void main(String [] args) { System.out.println("main 1"); mystery1(true); System.out.println("main 2"); mystery2(7); System.out.println("main 3"); } public static void mystery1(boolean a) { System.out.println("a = " + a); if(a) { mystery2(2); } System.out.println("end mystery1"); } public static void mystery2(int x) { System.out.println("x = " + x); } }</pre>	<p><u>Screen</u> main 1 a = true x = 2 end mystery1 main 2 x = 7 main 3</p>
<pre>public class Quiz3 { public static void main(String [] args) { int x = 1, y = 2, z = 3; mystery3 (x, y, z); System.out.println(x + " " + y + " " + z); } public static void mystery3 (int x, int y, int z) { x *= 2; y += x; z = z % 2; } }</pre>	<p><u>Screen</u> 1 2 3</p>
<pre>public class Quiz4 { public static void main(String [] args) { int A[] = {1, 2, 3}; mystery4 (A); System.out.println(A[2]); } public static void mystery4 (int A []) { for (int i = 1; i < A. length; i++) A[i] += A[i-1]; } }</pre>	<p><u>Screen</u> 6</p>

<pre> public class Quiz5 { public static void main(String [] args) { int A[] = {1, 2, 3}; int B[] = {4, 5, 6}; int x = mystery5 (A, B); System.out.println(x + " " + A[1]); } public static int mystery5 (int A [], int B []) { A = B; return A[1]; } } </pre>	<u>Screen</u> 5 2
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- 2. Writing a short method:** Write a method that takes integers a, b, and c as arguments. It should return their average (as a double).

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public static double average (int a, int b, int c) {
    return (a+b+c)/3.0;
}

```

- 3. Writing a short method:** Write a method called `copyString` that takes a `String s` and an `int x` as arguments. The method should return a `String` containing `x` copies of `s`.

For example, if you define the method correctly, then the command
`String t = copyString("blah", 3);`
should store "blahblahblah" in

```

public static String copyString (String s, int x) {
    String result = "";
    for(int j = 1; j<=x; j++)
        result += s;
    return result;
}

```