

AP Computer Science - Easy Starter Questions

Name: _____ Date: _____

Question 1: Simple Variable Trace

```
public static void trace1() {  
    int x = 5;  
    int y = 3;  
    x = x + y;  
    y = x - y;  
    System.out.println(x + " " + y);  
}
```

What is printed when trace1() is called? _____ ###

Question 2: Basic Loop

```
public static void trace2() {  
    int count = 0;  
    for (int i = 1; i <= 5; i++) {  
        count = count + i;  
    }  
    System.out.println(count);  
}
```

What is printed when trace2() is called? _____ ###

Question 3: Simple Conditional

```
public static void trace3(int n) {  
    if (n > 10) {  
        n = n * 2;  
    } else {  
        n = n + 5;  
    }  
    System.out.println(n);  
}
```

What is printed when trace3(7) is called? _____

Question 4: Loop with Counter

```
public static void trace4() {  
    int x = 10;  
    int count = 0;  
    while (x > 0) {  
        x = x - 3;  
        count++;  
    }  
    System.out.println(count + " " + x);  
}
```

What is printed when trace4() is called? _____ ###

Question 5: Loop with Conditional

```
public static void trace5(int n) {  
    int sum = 0;  
    for (int i = 1; i <= n; i++) {  
        if (i % 2 == 0) {  
            sum = sum + i;  
        }  
    }  
    System.out.println(sum);  
}
```

What is printed when trace5(6) is called? _____

Question 6: While Loop with Update

```
public static void trace6(int n) {  
    int a = 1;  
    int b = 0;  
    while (a < n) {  
        a = a * 2;  
        b++;  
    }  
    System.out.println(a + " " + b);  
}
```

What is printed when trace6(20) is called? _____

Question 7: Nested Conditionals

```
public static void trace7(int x, int y) {  
    int result = 0;  
    if (x > 5) {  
        if (y < 10) {  
            result = x + y;  
        } else {  
            result = x - y;  
        }  
    } else {  
        result = x * y;  
    }  
    System.out.println(result);  
}
```

What is printed when trace7(8, 15) is called? _____

Question 8: Loop with Multiple Updates

```
public static void trace8() {  
    int x = 1;  
    int y = 10;
```

```

    while (x < y) {
        x = x + 2;
        y = y - 1;
    }
    System.out.println(x + " " + y);
}

```

What is printed when trace8() is called? _____ ###

Question 9: Accumulator Pattern

```

public static void trace9(int n) {
    int result = 1;
    int count = 0;
    while (result <= n) {
        result = result * 3;
        count++;
    }
    System.out.println(count + " " + result);
}

```

What is printed when trace9(50) is called? _____

Question 10: Complex Loop Logic

```

public static void trace10(int n) {
    int a = 0;
    int b = 1;
    for (int i = 0; i < n; i++) {
        int temp = a + b;
        a = b;
        b = temp;
    }
    System.out.println(a);
}

```

What is printed when trace10(5) is called? _____