# 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);  
}

1. **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);  
}

1. **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);  
}

1. **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);  
}

1. **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);  
}

1. **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);  
}

1. **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);  
}

1. **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);  
}

1. **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);  
}

1. **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);  
}

1. **What is printed when trace10(5) is called?** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_