

A diagram illustrating control flow with colored nodes and lines. The nodes are: a yellow circle at the start of the function, a purple circle at the opening brace of the if block, a red circle at the opening brace of the else if block, a purple circle at the opening brace of the return statement inside the else if block, a yellow circle at the opening brace of the final return statement, and a red circle at the closing brace of the function. Lines connect these nodes to show the flow of execution: a yellow line from the start to the if block, a red line from the if block to the else if block, a purple line from the else if block to the final return statement, and a red line from the final return statement to the function's closing brace.

```
public static int ackermann(int n, int m) {  
    if (n == 0) {  
        return m + 1;  
    } else if (m == 0) {  
        return ackermann(n - 1, 1);  
    }  
  
    return ackermann(n - 1, ackermann(n, m - 1));  
}
```