

```
public static int compute(int a, int b) {  
    if (b == 0) {  
        return 1;  
    }  
  
    if (b == 1) {  
        return a;  
    }  
  
    return a * compute(a, b - 1);  
}
```

The diagram illustrates the execution flow of the recursive function `compute`. It shows a series of nodes (colored circles) connected by lines, representing the sequence of function calls and returns. The nodes are arranged in a way that shows the recursive calls branching out and then returning back up the call stack. The colors of the nodes (yellow, orange, purple, blue) likely represent different states or steps in the execution process.