

```
public static int compute(int value) {  
    if (value == 1) {  
        return 1;  
    }  
    return compute(value - 1) * value;  
}
```

The diagram illustrates the recursive calls for the `compute` function. Nodes represent function calls, and lines represent the call stack and return flow. The nodes are color-coded: grey for the initial call, orange for the base case, yellow for the return path, and purple for the recursive calls. The lines show the flow of control and data between these calls.