

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

The diagram illustrates the execution flow of the recursive function `compute`. It shows a sequence of function calls and returns, represented by colored nodes and connecting lines. The nodes are colored in a gradient from purple (top) to yellow (bottom). The lines represent the flow of control and data (return values) between the function calls. The graph shows a sequence of calls for values 1 through 5, with return values being passed back up the chain. The nodes are colored in a gradient from purple (top) to yellow (bottom).