

```
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. It shows a sequence of nodes representing function calls, connected by lines. The nodes are colored: purple for `compute(5)`, orange for `compute(4)`, yellow for `compute(3)`, and red for `compute(2)`. The connections show the flow of the recursion, with the base case `compute(1)` returning 1, and subsequent calls returning the product of the current value and the result of the recursive call.