

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

The diagram illustrates the recursive call stack for the `compute` function. Nodes are represented by colored circles: red for the base case (`value == 1`), yellow for intermediate recursive calls, and orange for the return propagation. Lines connect the nodes to show the sequence of calls and the flow of return values back up the stack.