

```
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 circles (purple, orange, yellow) and connected by lines. The stack grows from the bottom (return compute(value - 1) \* value;) up to the top (public static int compute(int value) {). The diagram shows the sequence of function calls and returns, with the base case (value == 1) at the top of the stack.