

```
public static int compute(int number) {  
    if (number <= 2) {  
        return 0;  
    }  
    return compute(number - 1) * compute(number - 2);  
}
```

The diagram illustrates the recursive execution of the `compute` function. It shows a series of nodes (circles) connected by lines, representing the sequence of function calls. The nodes are colored in shades of purple, orange, and yellow. The code is overlaid on the diagram, with some words highlighted in blue. The code is as follows:

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    }  
    return compute(number - 1) * compute(number - 2);  
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