

```
public static int compute(int number) {  
    if (number == 0) {  
        return 0;  
    }  
    return (number % 10) + compute((int) number/10);  
}
```

The diagram illustrates the recursive process of the `compute` function. It shows a sequence of nodes (circles) connected by lines, representing the call stack and the return values. The nodes are colored in a gradient from purple to yellow. The diagram shows the function being called with `number` and returning the sum of the last digit and the result of the recursive call.