



A diagram illustrating variable scope in the provided code. It features three colored circles: a yellow circle on the left, a red circle above the 'for' loop, and an orange circle above the 'return' statement. A yellow arrow points from the yellow circle to the 'for' loop. A red arrow points from the red circle to the 'res' variable in the first line. Another red arrow points from the orange circle to the 'res' variable in the second line.

```
public static int sum(int n) {  
    int res = 0;  
    for (int i = 1; i < n; i++) {  
        res += i;  
    }  
    return res;  
}
```