Executing method calls

```java
public int num(char c) {
    int s = 0;
    // inv: s = number of c's in name[0..k-1]
    for (int k = 0; k < name.length(); k++) {
        if (name.charAt(k) == c) s++;
    }
    return s;
}

v.a0 num('e')
```

/** = no. times c occurs in name. */

Frame for the call

<table>
<thead>
<tr>
<th>Local Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>c 'e'</td>
</tr>
<tr>
<td>s ?</td>
</tr>
<tr>
<td>k ?</td>
</tr>
</tbody>
</table>

Scope box: where method is located: object name or file drawer (class) name

Program counter

<table>
<thead>
<tr>
<th>Method Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>num</td>
</tr>
</tbody>
</table>

Object name or file drawer (class) name

Parameters

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>c</td>
</tr>
<tr>
<td>s ?</td>
</tr>
<tr>
<td>k ?</td>
</tr>
</tbody>
</table>
Executing method calls

```java
// inv: s = number of c's in s[0..k-1]
for (int k = 0; k < name.length(); k = k + 1) {
    if (name.charAt(k) == c) {
        s = s + 1;
    }
}
return s;
```

/** = no. times c occurs in name. */
num(char c) {
    int s = 0;
    // inv: s = number of c's in s[0..k-1]
    for (int k = 0; k < name.length(); k = k + 1) {
        if (name.charAt(k) == c) {
            s = s + 1;
        }
    }
    return s;
}

Memorize!!!!
1. Draw frame
2. Assign args to pars
3. Execute body
4. Erase frame