|  |  |  |  |
| --- | --- | --- | --- |
| **#Call** | **lst** | **Base Case?** | **Returned** |
| 1 | [1, 1, 2, 3, 5] | N | [5] + rev\_list([1, 1, 2, 3]) |
| 2 | [1, 1, 2, 3] | N | [3] + rev\_list([1, 1, 2]) |
| 3 | [1, 1, 2] | N | [2] + rev\_list([1, 1]) |
| 4 | [1, 1] | N | [1] + rev\_list([1]) |
| 5 | [1] | Y | [1] |

**Example One – Tracing – Reversing a list**

|  |  |  |
| --- | --- | --- |
| **Return #** | **Lst(line5)** | **Returned** |
| 1 | [1] | [1] |
| 2 | [1, 1] | [1] + [1] = [1, 1] |
| 3 | [1, 1, 2] | [2] + [1, 1] = [2, 1, 1] |
| 4 | [1, 1, 2, 3] | [3] + [2, 1, 1] = [3, 2, 1, 1] |
| 5 | [1, 1, 2, 3, 5] | [5] + [3, 2, 1, 1] = [5, 3, 2, 1, 1] |

**Example 2 – Tracing a Mystery Recursive Function**

|  |  |  |  |
| --- | --- | --- | --- |
| **Call#** | **s** | **Base Case?** | **Returned** |
| 1 | ‘abceba’ | N | True and spam(‘bceb’) |
| 2 | ‘bceb’ | N | True and spam(‘ce’) |
| 3 | ‘ce’ | N | False and spam(‘’) |
| 4 | ‘’ | Y | True |

|  |  |  |
| --- | --- | --- |
| **Return#** | **s(line5)** | **Returned(line5)** |
| 1 | ‘’ | True |
| 2 | ‘ce’ | False and True = False |
| 3 | ‘bceb’ | True and False = False |
| 4 | ‘abceba’ | True and False = False |