Recursion

| # | No. of elements | | Method call | s |
|---|-----------------|----|-------------|-------|
| 1 | | 2 | | 0 |
| 2 | 2 | 3 | | 0 |
| 3 | } | 6 | | 4 |
| 4 | Į. | 15 | | 376 |
| 5 | ,) | 17 | | 986 |
| 6 |) | 19 | | 2583 |
| 7 | 7 | 25 | | 16367 |

Dynamic Prog.(DP)

| # | No. of elements | | Method calls | |
|---|-----------------|----|--------------|----|
| 1 | | 2 | | 1 |
| 2 | | 3 | | 2 |
| 3 | | 6 | | 3 |
| 4 | | 15 | | 11 |
| 5 | | 17 | | 11 |
| 6 | | 19 | | 13 |
| 7 | | 25 | | 19 |

The relative efficiency of recursion is much less than that of dynamic programming as we can see from the table and the graphs. The efficiency of recursion is increasing exponentially whereas the efficiency of dynamic programming is (n-constant).



