Answer Sheet for Problem 2 and problem 4.

Asymptotic Analysis for List-based Dictionary

|  |  |  |  |
| --- | --- | --- | --- |
| Operation | Best case time cost | Worst case time cost | Average case time cost |
| clear |  |  |  |
| insert |  | O(1) | Θ(1) |
| remove |  | O(1) | Θ(1) |
| removeAny |  |  |  |
| find |  | O(n) | Θ(n) |
| size |  |  |  |

Asymptotic Analysis for Double List-based Dictionary

|  |  |  |  |
| --- | --- | --- | --- |
| Operation | Best case time cost | Worst case time cost | Average case time cost |
| clear |  |  |  |
| insert |  | O(1) | Θ(1) |
| remove |  | O(1) | Θ(1) |
| removeAny |  |  |  |
| find |  | O(n) | Θ(n) |
| size |  |  |  |