**Chaining using a linked list**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| / | 93 | / | 463 | / | 74 | 121 | / | 77 | / | 217 | / | 12 | 36 | / | 61 | / | / | 248 | / | / | / | / |
|  | 47 |  | / |  | / | / |  | 146 |  | 286 |  | / | / |  | 153 |  |  | / |  |  |  |  |
|  | / |  |  |  |  |  |  | / |  | / |  |  |  |  | 337 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | / |  |  |  |  |  |  |  |

**Linear probling**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|  | 93 | 47 | 463 |  | 74 | 121 |  | 77 | 146 | 217 | 286 | 12 | 36 |  | 61 | 153 | 337 | 248 |  |  |  |  |

**Quadratic probling**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 21 |
|  | 93 | 47 | 463 |  | 74 | 121 |  | 77 | 146 | 217 | 286 | 12 | 36 |  | 61 | 153 |  | 248 | 337 |  |  |  |

**Double hasing**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 21 |
| 337 | 93 |  | 463 |  | 74 | 121 | 146 | 77 | 47 | 217 | 286 | 12 | 36 | 153 | 61 |  |  | 248 |  |  |  |  |