DP APPROACH

|  |  |
| --- | --- |
| **Size of parent set** | **Run time in millisecond** |
| 4 | 31 |
| 5 | 47 |
| 8 | 63 |
| 10 | 63 |
| 12 | 70 |
| 16 | 94 |
| 18 | 212 |
| 20 | 811 |
| 21 | 874 |
|  |  |

|  |  |
| --- | --- |
| **Size of parent set** | **Cost** |
| 4 | 5 |
| 5 | 11 |
| 8 | 5 |
| 10 | 7 |
| 12 | 4 |
| 16 | 8 |
| 18 | 14 |
| 20 | 25 |
| 21 | 25 |
|  |  |

LP APPROACH

|  |  |
| --- | --- |
| **Size of parent set** | **Run time in millisecond** |
| 4 | 164 |
| 5 | 120 |
| 8 | 144 |
| 10 | 194 |
| 12 | 152 |
| 16 | 137 |
| 18 | 226 |
| 20 | 219 |
| 21 | 230 |
|  |  |

|  |  |
| --- | --- |
| **Size of parent set** | **Cost** |
| 4 | 5 |
| 5 | 12 |
| 8 | 5 |
| 10 | 7 |
| 12 | 8 |
| 16 | 8 |
| 18 | 14 |
| 20 | 25 |
| 21 | 25 |
|  |  |

APPROXIMATION RATIO:

|  |  |  |  |
| --- | --- | --- | --- |
| **Size of parent set** | **Cost of DP** | **Cost of LP** | **ratio** |
| 4 | 5 | 5 | 1 |
| 5 | 11 | 12 | 1.1 |
| 8 | 5 | 5 | 1 |
| 10 | 7 | 7 | 1 |
| 12 | 4 | 8 | 2 |
| 16 | 8 | 8 | 1 |
| 18 | 14 | 14 | 1 |
| 20 | 25 | 25 | 1 |
| 21 | 25 | 15 | 1 |
|  |  |  |  |