|  |  |
| --- | --- |
| **Input** | **Output** |
| 4 12  1 0  1 2  1 4  1 8  1 9  1 10  2 5  2 9  3 0  3 4  -1 | 5 1 1 1 3 4 |
| 3 11  0 0  0 3  0 4  0 7  0 9  0 10  1 7  1 9  1 10  -1 | 4 1 2 2 4 |
| 3 10  0 1  0 2  0 3  0 5  0 6  0 7  1 3  1 5  1 7  2 3  2 4  2 5  -1 | 1 12 |