**CÂN BẰNG LƯỢC ĐỒ XÁM**

**Câu 1.**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | 2 | 0 | 4 |
| 1 | 0 | 0 | 7 |
| 2 | 2 | 1 | 0 |
| 4 | 1 | 2 | 1 |
| 2 | 0 | 1 | 1 |

**Giải**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | P (r) |  | Làm tròn |
| 0 | 5 | 5/20 | 7.(5/20) = 7/4 = 1.75 | 2 |
| 1 | 7 | 7/20 | 7.(5/20 + 7/20) = 21/5=4.2 | 4 |
| 2 | 5 | 5/20 | 7.(5/20 + 7/20 + 5/20) = 119/20 = 5.95 | 6 |
| 3 | 0 | 0 | 5.95 | 6 |
| 4 | 2 | 2/20 | 7.(5/20 + 7/20 + 5/20 + 2/20) = 133/20 = 6.65 | 7 |
| 5 | 0 | 0 | 6.65 | 7 |
| 6 | 0 | 0 | 6.65 | 7 |
| 7 | 1 | 1/20 | 7.(5/20 + 7/20 + 5/20 + 2/20 + 1/20) = 7 | 7 |

**Ma trận đã cân bằng:**

4 6 2 7

4 2 2 7

6 6 4 2

7 4 6 4

6 2 4 4

**Câu 2.**

0 5 0 5 5

1 7 6 6 7

5 5 6 2 7

6 6 7 5 6

0 1 5 0 2

**Giải**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | P (r) |  | Làm tròn |
| 0 | 5 | 4/25 | 7.(4/25) = 28/25 = 1.12 | 1 |
| 1 | 7 | 2/25 | 7.(4/25 + 2/25) = 42/25 = 1.68 | 2 |
| 2 | 5 | 2/25 | 7.(4/25 + 2/25 + 2/25) = 56/25 = 2.24 | 2 |
| 3 | 0 | 0 | 2.24 | 2 |
| 4 | 2 | 0 | 2.24 | 2 |
| 5 | 0 | 7/25 | 7.(4/25 + 2/25 + 2/25 + 7/25) = 21/5 = 4.2 | 4 |
| 6 | 0 | 6/25 | 7.(4/25 + 2/25 + 2/25 + 7/25 + 6/25) = 147/25 =5.88 | 6 |
| 7 | 1 | 4/25 | 7.(4/25 + 2/25 + 2/25 + 7/25 + 6/25 + 4/25) = 7 | 7 |

1 4 1 4 4

2 7 6 6 7

4 4 6 2 7

6 6 7 4 6

1 2 4 1 2