**Задача о назначениях**

**Сапожников В.О. 19-В-1**

**ВАРИАНТ 3**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 9 | 8 | 7 | 3 | 9 |
| 2 | 7 | 6 | 8 | 9 |
| 1 | 1 | 2 | 2 | 6 |
| 7 | 6 | 4 | 4 | 10 |
| 2 | 6 | 5 | 5 | 10 |

**MIN**

Приводим матрицу

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | min |
| 9 | 8 | 7 | 3 | 9 | 3 |
| 2 | 7 | 6 | 8 | 9 | 2 |
| 1 | 1 | 2 | 2 | 6 | 1 |
| 7 | 6 | 4 | 4 | 10 | 4 |
| 2 | 6 | 5 | 5 | 10 | 2 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 6 | 5 | 4 | 0 | 6 |
|  | 0 | 5 | 4 | 6 | 7 |
|  | 0 | 0 | 1 | 1 | 5 |
|  | 3 | 2 | 0 | 0 | 6 |
|  | 0 | 4 | 3 | 3 | 8 |
| min | 0 | 0 | 0 | 0 | 5 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 6 | 5 | 4 | 0 | 1 |
| 0 | 5 | 4 | 6 | 2 |
| 0 | 0 | 1 | 1 | 0 |
| 3 | 2 | 0 | 0 | 1 |
| 0 | 4 | 3 | 3 | 3 |

Отмечаем нули

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 6 | 5 | 4 | 0 | 1 |
| 0 | 5 | 4 | 6 | 2 |
| 0 | 0 | 1 | 1 | 0 |
| 3 | 2 | 0 | 0 | 1 |
| 0 | 4 | 3 | 3 | 3 |

Пересчет



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 6 | 5 | 4 | 0 | 1 |
| 0 | 5 | 4 | 6 | 2 |
| 0 | 0 | 1 | 1 | 0 |
| 3 | 2 | 0 | 0 | 1 |
| 0 | 4 | 3 | 3 | 3 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 6 | 4 | 3 | 0 | 0 |
| 0 | 4 | 3 | 6 | 1 |
| 1 | 0 | 1 | 2 | 0 |
| 4 | 2 | 0 | 1 | 1 |
| 0 | 3 | 2 | 3 | 2 |

Отмечаем нули

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 6 | 4 | 3 | 0 | 0 |
| 0 | 4 | 3 | 6 | 1 |
| 1 | 0 | 1 | 2 | 0 |
| 4 | 2 | 0 | 1 | 1 |
| 0 | 3 | 2 | 3 | 2 |

Пересчет



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 6 | 4 | 3 | 0 | 0 |
| 0 | 4 | 3 | 6 | 1 |
| 1 | 0 | 1 | 2 | 0 |
| 4 | 2 | 0 | 1 | 1 |
| 0 | 3 | 2 | 3 | 2 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 7 | 4 | 4 | 0 | 0 |
| 0 | 3 | 3 | 5 | 0 |
| 2 | 0 | 2 | 2 | 0 |
| 4 | 1 | 0 | 0 | 0 |
| 0 | 2 | 2 | 2 | 1 |

Отмечаем нули

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 7 | 4 | 4 | 0 | 0 |
| 0 | 3 | 3 | 5 | 0 |
| 2 | 0 | 2 | 2 | 0 |
| 4 | 1 | 0 | 0 | 0 |
| 0 | 2 | 2 | 2 | 1 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 9 | 8 | 7 | 3 | 9 |
| 2 | 7 | 6 | 8 | 9 |
| 1 | 1 | 2 | 2 | 6 |
| 7 | 6 | 4 | 4 | 10 |
| 2 | 6 | 5 | 5 | 10 |

3+9+1+4+2=**19**

**MAX**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 9 | 8 | 7 | 3 | 9 |
| 2 | 7 | 6 | 8 | 9 |
| 1 | 1 | 2 | 2 | 6 |
| 7 | 6 | 4 | 4 | 10 |
| 2 | 6 | 5 | 5 | 10 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 7 | 1 |
| 8 | 3 | 4 | 2 | 1 |
| 9 | 9 | 8 | 8 | 4 |
| 3 | 4 | 6 | 6 | 0 |
| 8 | 4 | 5 | 5 | 0 |

Приводим матрицу

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | min |
| 1 | 2 | 3 | 7 | 1 | 1 |
| 8 | 3 | 4 | 2 | 1 | 1 |
| 9 | 9 | 8 | 8 | 4 | 4 |
| 3 | 4 | 6 | 6 | 0 | 0 |
| 8 | 4 | 5 | 5 | 0 | 0 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 0 | 1 | 2 | 6 | 0 |
|  | 7 | 2 | 3 | 1 | 0 |
|  | 5 | 5 | 4 | 4 | 0 |
|  | 3 | 4 | 6 | 6 | 0 |
|  | 8 | 4 | 5 | 5 | 0 |
| min | 0 | 1 | 2 | 1 | 0 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0 | 0 | 0 | 5 | 0 |
| 7 | 1 | 1 | 0 | 0 |
| 5 | 4 | 2 | 3 | 0 |
| 3 | 3 | 4 | 5 | 0 |
| 8 | 3 | 3 | 4 | 0 |

Отмечаем нули

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0 | 0 | 0 | 5 | 0 |
| 7 | 1 | 1 | 0 | 0 |
| 5 | 4 | 2 | 3 | 0 |
| 3 | 3 | 4 | 5 | 0 |
| 8 | 3 | 3 | 4 | 0 |

Пересчет

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0 | 0 | 0 | 5 | 0 |
| 7 | 1 | 1 | 0 | 0 |
| 5 | 4 | 2 | 3 | 0 |
| 3 | 3 | 4 | 5 | 0 |
| 8 | 3 | 3 | 4 | 0 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0 | 0 | 0 | 5 | 2 |
| 7 | 1 | 1 | 0 | 2 |
| 3 | 2 | 0 | 1 | 0 |
| 1 | 1 | 2 | 3 | 0 |
| 6 | 1 | 1 | 2 | 0 |

Отмечаем нули

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0 | 0 | 0 | 5 | 2 |
| 7 | 1 | 1 | 0 | 2 |
| 3 | 2 | 0 | 1 | 0 |
| 1 | 1 | 2 | 3 | 0 |
| 6 | 1 | 1 | 2 | 0 |

Пересчет

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0 | 0 | 0 | 5 | 2 |
| 7 | 1 | 1 | 0 | 2 |
| 3 | 2 | 0 | 1 | 0 |
| 1 | 1 | 2 | 3 | 0 |
| 6 | 1 | 1 | 2 | 0 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0 | 0 | 1 | 5 | 3 |
| 7 | 1 | 2 | 0 | 3 |
| 2 | 1 | 0 | 0 | 0 |
| 0 | 0 | 2 | 2 | 0 |
| 5 | 0 | 1 | 1 | 0 |

Отмечаем нули

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0 | 0 | 1 | 5 | 3 |
| 7 | 1 | 2 | 0 | 3 |
| 2 | 1 | 0 | 0 | 0 |
| 0 | 0 | 2 | 2 | 0 |
| 5 | 0 | 1 | 1 | 0 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 9 | 8 | 7 | 3 | 9 |
| 2 | 7 | 6 | 8 | 9 |
| 1 | 1 | 2 | 2 | 6 |
| 7 | 6 | 4 | 4 | 10 |
| 2 | 6 | 5 | 5 | 10 |

9+6+2+8+10=**35**