24293916005

MINIMUM CHEATING

1. **10 Students**: No student is sitting adjacent to each other (horizontally or vertically) or diagonally adjacent. Hence both possibilities fail.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| I | | | | | | | | |
| s | - | s | - | s | - | s | - | s |
| - | - | - | - | - | - | - | - | - |
| s | - | s | - | s | - | s | - | s |

1. **50 Students**:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| I | | | | | | | | | | | | | | | | | | |
| s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s |

1. **120 Students**:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| I | | | | | | | | | | | | | | | | | | | | | | |
| s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s | - | s |

MAXMIMUM CHEATING

1. **10 Students**: All students except the corner and edge ones are sitting adjacent to each other (horizontally and vertically) and diagonally adjacent. Hence both possibilities exist.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| I | | | | |
| s | s | s | s | s |
| s | s | s | s | s |

1. **50 Students**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| I | | | | |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |

1. **120 Students**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| I | | | | |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |
| s | s | s | s | s |