$\boldsymbol{Matrix_{n*n}}$: $row\ is\ player, column\ is\ object, and\ [i,j]\ is\ the\ value\ of\ player_i\ to\ object_j$

$\boldsymbol{def}\ maxMinDivision(Matrix)$:

1. $for\ each\ row_i$:
   $get\ minRowValue$
   $row_i \leftarrow row_i - minRowValue$
2. $if\ getMinColMark(Matrix) = n$:
   $return\ flowNetwork(Matrix)$
3. $for\ each\ col_i$:
   $get\ minColValue$
   $col_i \leftarrow col_i - minColValue$
4. $if\ getMinColMark(Matrix) + getMinRowMark(Matrix) = n$:
   $return\ flowNetwork(Matrix)$
5. $get\ minNonMarkValue$
6. $for\ [i,j]\ in\ matrix$:
   $if\ [i,j]\ NonMark$: $[i,j] \leftarrow [i,j] -\ minNonMarkValue$
   $if\ [i,j]\ OneMark$: $continiu$
   $if\ [i,j]\ TwoMark$: $[i,j] \leftarrow [i,j] +\ minNonMarkValue$
7. $return\ flowNetwork(Matrix)$

$\boldsymbol{def}\ getMinRowMark(Matrix)$:

1. $for\ [i,j]\ in\ Matrix$:
   $if\ [i,j] = 0$: $mark\ row_i$
2. $returm\ numbers\ of\ marke\ rows$

$\boldsymbol{def}\ getMinColMark(Matrix)$:

1. $for\ [i,j]\ in\ Matrix$:
   $if\ [i,j] = 0$: $mark\ col_i$
2. $returm\ numbers\ of\ marke\ columns$

$\boldsymbol{def}\ flowNetwork(Matrix)$:

1. $build\ the\ flowNetwork$:
   1.1. $\underline{nodes}$:
   $Start,$
   $\{Player_1, \dots, Player_n\},$
   $\{Object_1, \dots, Object_n\},$
   End
   1.2. $\underline{edges}$:
   $Start \rightarrow Player_{\{1,\dots,n\}},$
   $Objects_{\{1,\dots,n\}} \rightarrow End,$
   $if\ matrix[i][j] = 0$: $Player_i \rightarrow Object_j$
2. $return\ \{Player - Object\}\ matches\ from\ MaxflowNetwork$