- 1.
- 2.
- 3.
- 4.
- 5. Find a mixed nash equilibrium of the zero-sum game. Give both strategies and the value of the game and show the vector of expected payoffs for player 2 under player 1's strategy and vice versa.

$$M = \begin{bmatrix} 1 & 0 & 1 & 8 & 0 \\ 5 & 8 & 9 & 2 & 1 \\ 0 & 1 & 8 & 0 & 5 \\ 8 & 9 & 2 & 1 & 0 \\ 1 & 8 & 0 & 5 & 8 \end{bmatrix}$$