MTH 4320 Homework 5

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Problem 1

Solution. ∎

Problem 2

Solution. ∎

Problem 3

Solution. ∎

Problem 4

Solution. ∎

Problem 5

Solution. Let G be a graph where the vertices represent the entries of the Sudoku grid. There is an edge between two vertices if they are in the same row or the same column. In addition, there is an edge between two vertices in the same subgrid. The graph coloring problem is to color the vertices with nine different colors s.t. no adjacent vertices have the same color. ∎