

MAT 226B Large Scale Matrix Computation

Homework 1

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Problem 1:

Problem 2:

Problem 3:

Problem 4:

Figure 1 shows the associated graph $G(A)$ of matrix A along with the steps of the minimum degree algorithm. From these steps, the reordering of the nodes will be $[8, 1, 7, 6, 3, 5, 4, 2]$

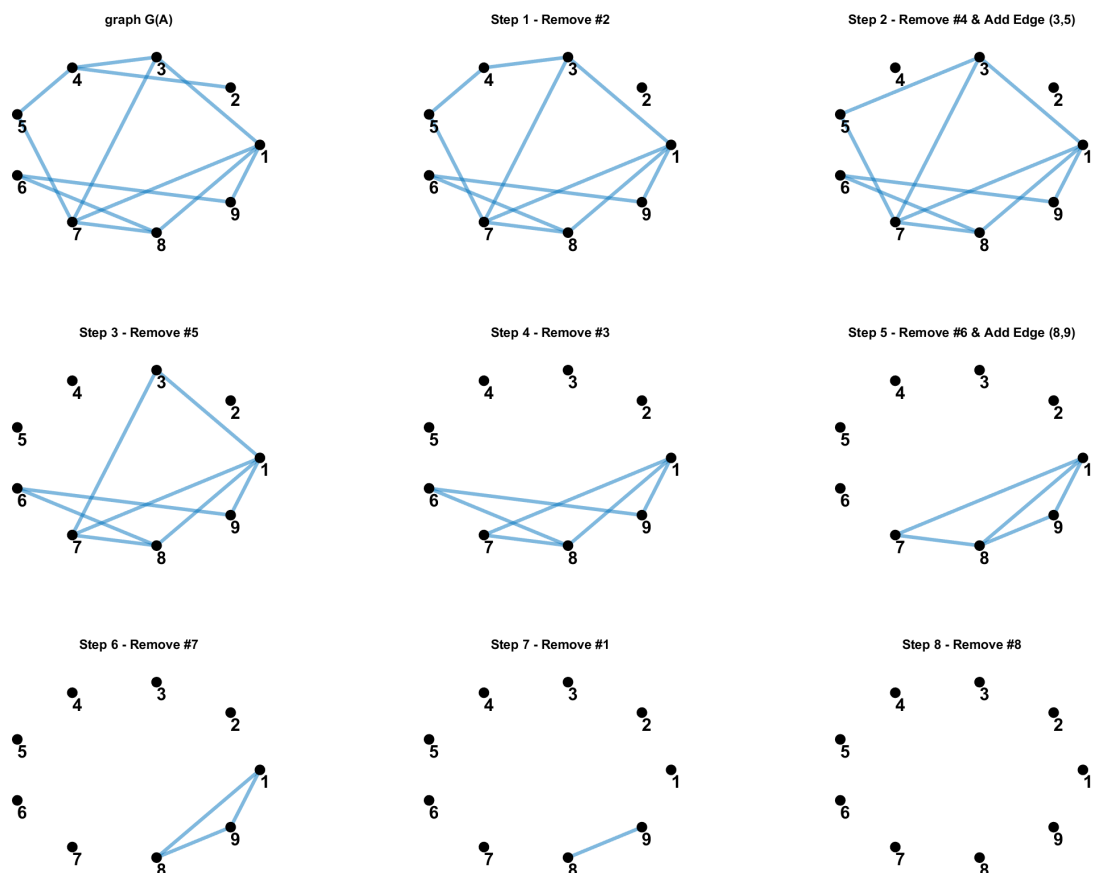


Figure 1: Graph $G(A)$ along with the 8 steps of the minimum degree algorithm applied on it.

Problem 5: