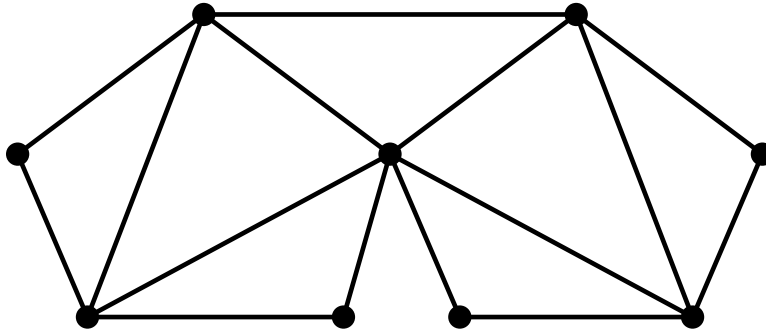


Fall 2019, Math 579: Preliminary Problem Set 6
Due: Thursday, October 10th, 2019
Trees

Preliminary problems. These problems should be completed before discussion on Thursday.



(P1) Find two spanning trees of the graph given above.

(P2) Find 2 subgraphs with the same number of edges as a spanning tree, but containing cycles.

(P3) Find the determinant of the following matrix.

$$\begin{pmatrix} 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 \\ 0 & 0 & 1 & 1 \\ 1 & 0 & 1 & 1 \end{pmatrix}$$