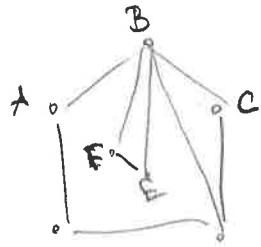


Math 300 HW #9

Section 10.2 #27, 29

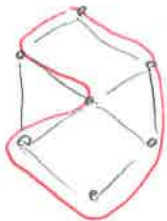
10.3 #2b, 3b, 4b

10.2 #27

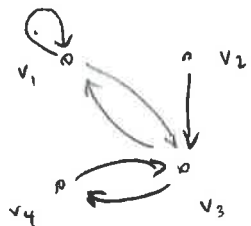


Since any Ham. circ uses all edges at degree 2 vertices, each edge at A, E, C must be used. But then 4 edges at B are used, which isn't allowed in a Ham. circ.

10.2 #29



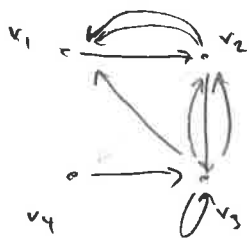
10.3 #2b



has adj. matrix

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

10.3 #3b



10.3 #4b

$$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 2 \\ 0 & 1 & 1 & 0 \\ 0 & 2 & 0 & 0 \end{bmatrix}$$