Homework Set 2

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10 Graphs

10.3 Representing Graphs and Graph Isomorphism

43. $|V_1| = |V_1| = 6, |E_1| = |E_2| = 9$

$$\mathbf{A}_{G,1} = \begin{bmatrix} 0 & 1 & 0 & 1 & 0 & 1 \\ 1 & 0 & 1 & 0 & 0 & 1 \\ 0 & 1 & 0 & 1 & 1 & 0 \\ 0 & 0 & 1 & 1 & 0 & 1 \\ 1 & 1 & 0 & 0 & 1 & 0 \end{bmatrix} \qquad \mathbf{A}_{G,2} = \begin{bmatrix} 0 & 1 & 0 & 1 & 1 & 0 \\ 1 & 0 & 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 & 0 & 1 \\ 1 & 1 & 0 & 0 & 0 & 1 \\ 0 & 0 & 1 & 1 & 1 & 0 \end{bmatrix}$$

$v \in V$	$f(v)$
u_1	v_1
u_2	v_2
u_3	v_3
u_4	v_4
u_5	v_6
u_6	v_5