Review 16

1. Determine D(4) and ∏(4) in the Floyd-Warshall algorithm.

$$D(3)=\begin{pmatrix} 0 & 3 & 8 & 4 & -4 \\ \infty & 0 & \infty & 1 & 7 \\ \infty & 4 & 0 & 5 & 11 \\ 2 & -1 & -5 & 0 & -2 \\ \infty & \infty & \infty & 6 & 0 \end{pmatrix} \qquad \Pi(3)=\begin{pmatrix} \text{NIL} & 1 & 1 & 2 & 1 \\ \text{NIL} & \text{NIL} & \text{NIL} & 2 & 2 \\ \text{NIL} & 3 & \text{NIL} & 2 & 2 \\ 4 & 3 & 4 & \text{NIL} & 1 \\ \text{NIL} & \text{NIL} & \text{NIL} & 5 & \text{NIL} \end{pmatrix}$$

$$D(4)=\begin{pmatrix} 0 & (&) & (&) & (&) \\ (&) & 0 & (&) & (&) \\ (&) & (&) & 0 & (&) \\ (&) & (&) & (&) & 0 \end{pmatrix}$$

$$\Pi(4)=\begin{pmatrix} \text{NIL} & (&) & (&) & (&) \\ (&) & \text{NIL} & (&) & (&) \\ (&) & (&) & \text{NIL} & (&) \\ (&) & (&) & (&) & \text{NIL} \end{pmatrix}$$