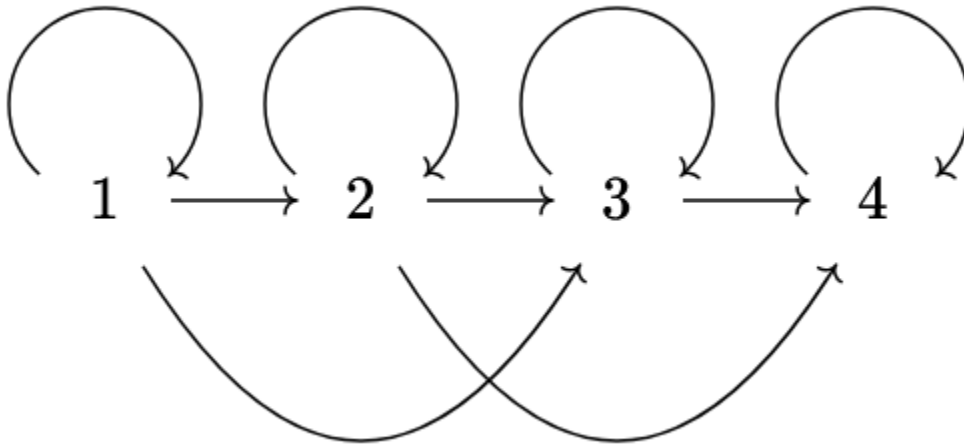


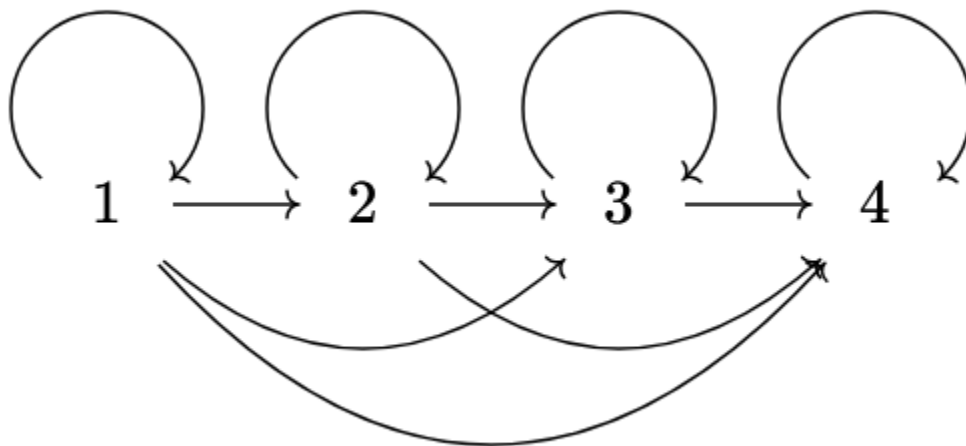
(2) Let G be the graph of the relation $R = \{(a, b) | 0 \leq b - a \leq 2\}$ on $S = \{1, 2, 3, 4\}$. Draw G and G^+ . Write down the adjacency matrix of both graphs.

G :



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

G^+ :



$$A^+ = \begin{pmatrix} 1 & 1 & 1 & 1 \\ 0 & 1 & 1 & 1 \\ 0 & 0 & 1 & 1 \\ 0 & 0 & 0 & 1 \end{pmatrix}$$