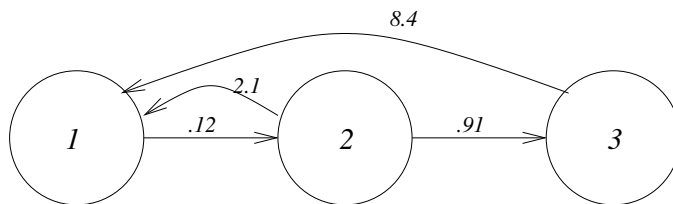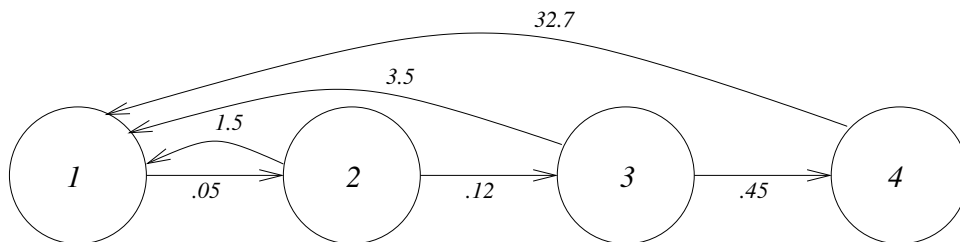# Mathematics 172 Homework

1. For the following loop diagrams write down the Leslie matrices.

(a)

$$\text{Answer: } L = \begin{bmatrix} 0 & 2.1 & 8.4 \\ .12 & 0 & 0 \\ 0 & .91 & 0 \end{bmatrix}$$
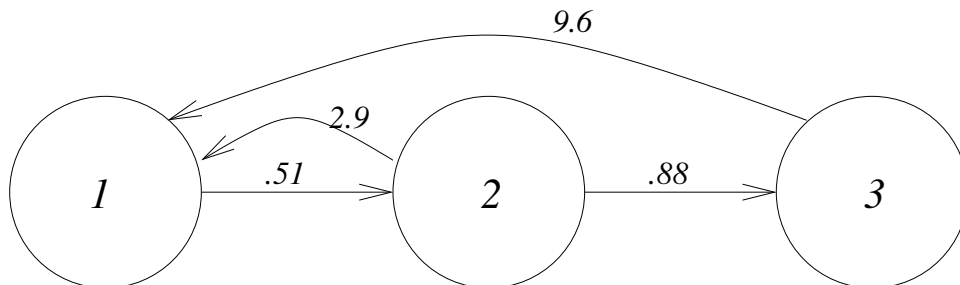
(b)

$$\text{Answer: } L = \begin{bmatrix} 0 & 1.3 & 2.7 & 12.9 \\ .15 & 0 & 0 & 0 \\ 0 & .3 & 0 & 0 \\ 0 & 0 & .85 & 0 \end{bmatrix}$$

2. For the following Leslie matrics write down the loop diagrams.

(a) $L = \begin{bmatrix} 0 & 2.9 & 9.6 \\ .51 & 0 & 0 \\ 0 & .88 & 0 \end{bmatrix}$

Answer:

(b) $L = \begin{bmatrix} 0 & 1.5 & 3.5 & 32.7 \\ .05 & 0 & 0 & 0 \\ 0 & .12 & 0 & 0 \\ 0 & 0 & .45 & 0 \end{bmatrix}$

Answer: