Scaling

$$\frac{\mathrm{d}N}{\mathrm{d}T} = rN[1 - N/k] \qquad n = N/k \quad \text{or} \quad N = kn$$

$$\frac{\mathrm{d}kn}{\mathrm{d}T} = k\frac{\mathrm{d}n}{\mathrm{d}T} = rkn[1 - kn/k] \quad \text{or} \quad \frac{\mathrm{d}n}{\mathrm{d}T} = rn[1 - n]$$

$$t = rT \quad \rightarrow \quad r\frac{\mathrm{d}n}{\mathrm{d}t} = rn[1 - n] \quad \text{or} \quad \frac{\mathrm{d}n}{\mathrm{d}t} = n[1 - n]$$

Exercise 5.4