

# ZADANIE 7.

$$* \frac{dN}{dt} = \frac{d(P+Q)}{dt} = cP$$

~~$$* \frac{dN}{dt} = cP - bN$$~~

$$* \ln N(t) = \frac{c}{b}(1 - e^{-bt})$$

$$N = e^{\frac{c}{b}(1 - e^{-bt})}$$

$$* \frac{dN}{dt} = (c - b \ln N)N$$

} równania, z których  
bierzemy wyznaczyć

$$\frac{dN}{dt} = c \cdot P$$

$$\underline{P} = \frac{\frac{dN}{dt}}{c} = \frac{(c - b \ln N)N}{c} = (1 - (1 - e^{-bt}))N = \underline{e^{-bt} N}$$

$$N = P + Q$$

$$N = e^{-bt} N + Q$$

$$Q = N - e^{-bt} N$$

$$\underline{Q = N(1 - e^{-bt})}$$