CUSTOMERS: 60 PER HOUR

PROB: 100 IN FIRST TWO HOURS AND A TOTAL OF 220 AFTER 4 HOURS.

$$P(N_2 = 100, N_4 = 220) = P(N_2 - N_0 = 100, N_4 - N_2 = 120)$$

$$= P(N_2 - N_0 = 100)\, P(N_4 - N_2 = 120) = P(N_2 = 100)\, P(N_2 = 120)$$

$$= \left(N_2 \sim \text{POISSON}(2 \cdot 60) = \text{POISSON}(120) \right)$$

$$= \text{dpois}(100, 120) \cdot \text{dpois}(120, 120) = \underline{0.00025}$$