

SOL

$$\lambda = 80 \text{ clientes/hora}$$

$$\mu = 1 \text{ cliente} / 1.2 \text{ min} \times \frac{60 \text{ min}}{1 \text{ hr.}} = 50 \text{ clientes/hora.}$$

$$N = 2$$

$$a) L_q = \frac{(\lambda/\mu)^3}{1 - (\lambda/\mu)^2} = \frac{4.01}{1 - 2.56} = 2.84 \text{ clientes}$$

$$L_s = L_q + \frac{\lambda}{\mu} = 2.78 + 1.6 = 4.44 \text{ clientes}$$

$$b) W_s = \frac{L_s}{\lambda} = \frac{4.38}{80} = 0.05 \text{ horas} = 3 \text{ min}$$

$$c) U = \frac{\lambda}{N \cdot \mu} = \frac{80}{2(50)} = 0.80$$

$$P_1 = (1 - U) \cdot U^1 = 0.20 \times 0.80 = 0.16$$

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