

② $\lambda = 6000 \text{ calls/hour}$

$$E(s) = 20/60 \text{ hour}$$

$$E(s) = 20/60 \text{ hours} = \frac{1}{3} \text{ hours} \Rightarrow \mu = \frac{1}{E(s)} = 3$$

$$p(L \leq c) > 0.975$$

$$C \geq \alpha + \sqrt{\alpha} \phi^{-1}(p) \quad ; \quad \alpha = \frac{\lambda}{\mu}$$

$$\lambda = \frac{6000}{3} = 2000$$

$$C \geq 2000 + \sqrt{2000} \phi^{-1}(0.975)$$

$$\geq 2000 + (10\sqrt{20} \times 1.96)$$

$$\geq 2000 + (44.72 \times 1.96)$$

$$\geq 2000 + 87.654$$

$$\geq 2087.654$$

The minimum number of calls they must make each hour is 2088.

plan to remove