

Question #270

Answer: C

$$\overset{\circ}{e}_{\overline{30:50}} = \overset{\circ}{e}_{30} + \overset{\circ}{e}_{50} - \overset{\circ}{e}_{30:50}$$

$$\overset{\circ}{e}_{30} = \overset{\circ}{e}_{50} = \int_0^{\infty} e^{-0.05t} dt = 20$$

$$\overset{\circ}{e}_{30:50} = \int_0^{\infty} e^{-0.10t} dt = 10$$

$$\overset{\circ}{e}_{\overline{30:50}} = 20 + 20 - 10 = 30$$