

Question #273

Answer: D

$$\text{Cov}[T_{30:50}, T_{\overline{30:50}}] = \left(\overset{\circ}{e}_{30} - \overset{\circ}{e}_{30:50} \right) \left(\overset{\circ}{e}_{50} - \overset{\circ}{e}_{30:50} \right) = (20 - 10)(20 - 10) = 100$$

See solution to Question #270 for the individual values.