

Question #83

Answer: C

Only decrement 1 operates before $t = 0.7$

$${}_{0.7}q'_{40}^{(1)} = (0.7)q'_{40}^{(1)} = (0.7)(0.10) = 0.07 \text{ since UDD}$$

Probability of reaching $t = 0.7$ is $1 - 0.07 = 0.93$

Decrement 2 operates only at $t = 0.7$, eliminating 0.125 of those who reached 0.7

$$q_{40}^{(2)} = (0.93)(0.125) = 0.11625$$