Question #280
Answer: A

$$\int_{10}^{20} {}_t p_{30} \mu_{30+t} \, {}_t q_{40} dt + \int_{10}^{20} {}_t p_{40} \mu_{40+t} \, {}_t q_{30} dt$$

$$= \int_{10}^{20} \frac{1}{70} \frac{t}{60} dt + \int_{10}^{20} \frac{1}{60} \frac{t}{70} dt = \frac{1}{70} \frac{400-100}{2(60)} + \frac{1}{60} \frac{400-100}{2(70)} = 0.0714$$