MAP 4175 / 5177 Name: _____

Quiz 2 Date: September 12, 2018

Each problem is worth 10 points. Show all work for full credit, and use correct notation.

1. Given $\mu_x = 0.03$, for all x, determine ${}_{20}p_{10}$

2. Given $\int_{20}^{40} \mu_x \, dx = 0.1$ and $\int_0^5 \mu_{40+t} dt = 0.05$, determine ${}_{25}q_{20}$

3. Given $\int_0^{20} {}_tp_{50}\mu_{50+t} \, dt = 0.15$ and ${}_{5|15}q_{50} = 0.10$, determine $\int_0^5 {}_tp_{50}\mu_{50+t} dt$

4. Given ${}_tp_{40} = \frac{60-t}{60}$, for $0 \leq t \leq 60$, determine $\overset{o}{e}_{40}$.

5. Given $e_{50} = 24.5$ and $e_{51} = 24.0$, determine q_{50}