

MAP 4175 / 5177
Test 4

Name: _____
Date: September 26, 2018

Each problem is worth 10 points. Show all work for full credit, and use correct notation. Simplify answers completely. See other side for additional problems.

1. Using L-TAM ILT mortality, determine each of the following:

(a) ${}_{0.5}p_{40}$ using the CF assumption

(b) ${}_{3.2}q_{36.3}$ using the UDD assumption

2. Given $q_{70} = 0.010$ and $q_{71} = 0.012$ determine ${}_{1.25}q_{70.5}$ using the UDD assumption.

3. Given $q_{80+k} = .1 + .05k$, for $k = 0$ and 1 , determine ${}_{1.7|0.3}q_{80}$ using the CF assumption.

4. Given ${}_k|q_{90} = .1(k + 1)$, for $k = 0$ and 1 , determine ${}_{0.5|0.3}q_{90.6}$ using the UDD assumption

5. Given ${}_{10}q_0 = 0.47$ and ${}_{20}q_0 = 0.62$, use linear interpolation to determine ${}_{12}q_0$