Test 4

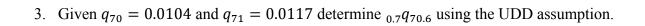
Each problem is worth 10 points. Show all work for full credit, and use correct notation. Simplify answers completely. See other side for additional problems.

- 1. Using ILT mortality, determine each of the following:
  - (a)  $_{0.5}q_{70}$  using the CF assumption

(b)  $_{1.8}p_{72.2}$  using the UDD assumption

- 2. Given  $l_{90} = 1000$ , and  $p_{90} = .8$ , and  $_2p_{90} = .45$  determine each of the following:
  - (a)  $l_{90.45}$  using the CF assumption

(b)  $l_{91.5}$  using the UDD assumption



4. Given 
$$q_{80+k} = .1 + .05k$$
, for  $k = 0$  and 1, determine  $_{1.3|0.7}q_{80}$  using the UDD assumption.

5. Given 
$$_{k|}q_{90}=.1(k+1)$$
, for  $k=0$  and 1, determine  $_{0.2|0.5}q_{90.8}$  using the CF assumption