

MA (ST)412 Supplement to 4.4

Note: from *Actuarial Mathematics*.

1. You are given

- (a) Deaths are uniformly distributed over each year of age;
- (b) $i = 0.05$;
- (c) $q_{35} = 0.01$;
- (d) $\bar{A}_{36} = 0.185$.

Calculate A_{35} .

2. You are given:

- (a) $A_{30} = 0.25$, $A_{50} = 0.40$, $A_{30:\overline{20}|} = 0.55$;
- (b) $i = 0.03$;
- (c) Deaths are uniformly distributed over each year of age.

Calculate $1000\bar{A}_{30:\overline{20}|}$.

Hint: use the results from HW problem 4.16.