

STAT 575
Homework 9 Problems
due Wednesday April 14

2 Problems. Show all work.

NOTE on the due date of HW9 (W April 14) there will be a short answer/multiple choice question given during the in-class zoom that you will answer on Blackboard as part of this HW. It will be worth 10 points (out of the 100 possible for this HW).

The numbers refers to *Cunningham et.al*, if not specified otherwise. Some problems may have additional parts.

1. Consider the partial life table:

x	l_x
80	250
81	217
82	161
83	107
84	62
85	28
86	0

(a) An 82 year old buys a two-year term life insurance policy that will pay \$10,000 at the end of his death. Suppose the annual effective interest rate is 5%. Calculate the actuarial present value (APV) of the life insurance policy.

(b) An 82 year old buys a two-year deferred life insurance policy that will pay \$10,000 at the end of his death. Suppose the annual effective interest rate is 5%. Calculate the actuarial present value (APV) of the life insurance policy.

2. p. 157, 5-13 (Hint: Use the identity from Exercise 5-6)