

MATH 3630 - Actuarial Mathematics I
Fall 2016 - Valdez
Quiz No. 5
Wednesday, 26 October 2016

Name: _____ Student ID: _____

The present value random variable for a life insurance issued to (40) is given by

$$Z = \begin{cases} 100 v^{K+1}, & K = 0 \\ 200 v^{K+1}, & K = 1 \\ 300 v^{K+1}, & K = 2, 3, \dots \end{cases}$$

where K is the curtate future lifetime of (40).

You are given:

$$A_{40} = 0.5084$$

$$A_{43} = 0.5519$$

$$(IA)_{40} = 8.6740$$

$$(IA)_{43} = 8.2879$$

$${}_3E_{40} = 0.8844$$

Calculate $E[Z]$.