

**Question #202****Answer: B**

$x$	$l_x^{(\tau)}$	$d_x^{(1)}$	$d_x^{(2)}$
40	2000	20	60
41	1920	30	50
42	1840	40	

because  $2000 - 20 - 60 = 1920$ ;  $1920 - 30 - 50 = 1840$

Let premium =  $P$

$$\text{EPV premiums} = \left( \frac{2000}{2000} + \frac{1920}{2000} v + \frac{1840}{2000} v^2 \right) P = 2.749P$$

$$\text{EPV benefits} = 1000 \left( \frac{20}{2000} v + \frac{30}{2000} v^2 + \frac{40}{2000} v^3 \right) = 40.41$$

$$P = \frac{40.41}{2.749} = 14.7$$