

**Question #289****Answer: E**

<i>t</i> -th year	${}_{t-1}V$	$P$	$E$	$I$	$E\overline{DB}$	$E_tV$	$Pr$	${}_{t-1}P_x$	$\Pi$
0*	0	0	1000	0	0	0	-1000	1.000	- 1000.0
1	0	14500	100	864	14000	690.2	573.8	1.000	573.8
2	700	14500	100	906	15000	689.5	316.5	0.986	312.1
3	700	14500	100	906	16000	0	6	0.971	5.8

$NPV = -1000 + 573.8v + 312.1v^2 + 5.8v^3 = -216.08$  using a 10% discount rate.

\*The 1000 at time 0 is neither accumulated nor discounted. The value is treated as occurring at the end of time 0 and not as occurring at the beginning of year 1.