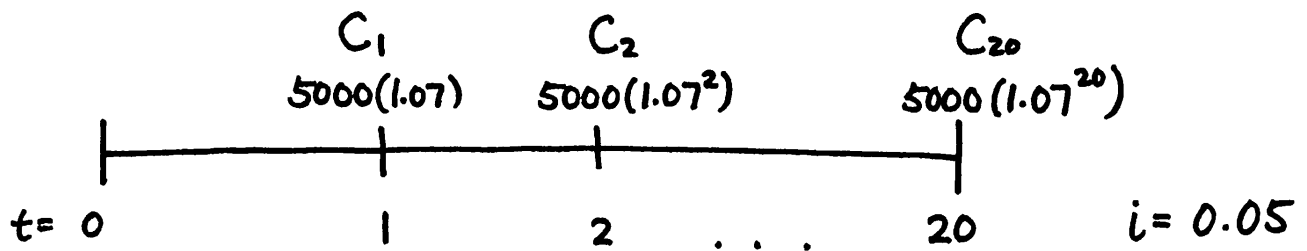


31.



$$\begin{aligned}
 \text{PV(Obligations)} &= C_1 v + C_2 v^2 + \dots + C_{20} v^{20} \\
 &= \frac{5000(1.07)}{1.05} + \frac{5000(1.07^2)}{1.05^2} + \dots + \frac{5000(1.07^{20})}{1.05^{20}} \\
 &= \frac{5000(1.07)}{1.05} \left[1 + \frac{1.07}{1.05} + \dots + \frac{1.07^{19}}{1.05^{19}} \right] \\
 &= \frac{5000(1.07)}{1.05} \left[\frac{1 - \frac{1.07^{20}}{1.05^{20}}}{1 - \frac{1.07}{1.05}} \right]
 \end{aligned}$$

$$= 122,634 \quad \textcircled{D}$$