



1. [1]  $F = P\left(1 + \frac{r}{k}\right)^n = 2300\left(1 + \frac{0.064}{4}\right)^{8 \cdot 8} \approx 2652.83$ .

2. [2]  $F = Pe^{rt} = 1000e^{0.095t} = 3200$  and so  $t = \frac{\ln\left(\frac{3200}{1000}\right)}{0.095} \approx 12.24$  years

3. [3] since  $9500 = x(1 + 0.08)^3 + x(1 + 0.08)^1 + x(1 + 0.08)^{-1}$ , then  $x = \frac{9500}{(1+0.08)^3 + (1+0.08)^1 + (1+0.08)^{-1}} \approx 2909.08$  dollars