8.1)

10yr \$50 pmt 1000 redemption $i=3\%$

$$PV = 1170.604 \approx \boxed{\$1170.60}$$

8.2)

$$\frac{50}{P}\left(1(1.03)^{-1} + 2(1.03)^{-2} + \dots + 10(1.03)^{-10}\right) + \frac{1000(10)(1.03)^{-10}}{P}$$

$$\left((1.03)^{-1} + 2(1.03)^{-2} + \dots + 10(1.03)^{-10}\right) = a_{\overline{10}|1.03} + \frac{1}{.03}\left(a_{\overline{10}|1.03} - \frac{10}{1.03^{10}}\right)$$

$$= 44.83899\ldots$$

$$\frac{50}{P}(44.83\ldots) + \frac{1000(10)(1.03)^{-10}}{P} = 8.2717$$

$$= \boxed{8.272}$$