

Q1.

- a. Expected inflation rate (f) = 5%
 Market inflation rate (i) = 10%
 Interest-free inflation rate (i') = ?

$$\begin{aligned} i &= i' + f + i'f \\ 0.1 &= i' + 0.05 + 0.05i' \\ i' &= 0.047 \\ &= 4.7\% \end{aligned}$$

- b $f = 9\%$
 $i = 12\%$
 $i' = ?$

$$\begin{aligned} i &= i' + f + i'f \\ 0.12 &= i' + 0.09 + 0.09i' \\ i' &= 0.027 \\ &= 2.7\% \end{aligned}$$

N	Payment	(PIF, i, N)	A_n
1	\$35,000	0.9737	\$35,079.84
2	\$37,450	0.9481	\$35,506.75
3	\$40,071.5	0.9232	\$36,993.40
4	\$42,876.51	0.8989	\$38,542.30
5	\$45,877.86	0.8753	\$40,156.05

$$PW = \sum_{i=1}^5 A_n$$

$$= \$185,278.34$$

Q2, Q3 & Q4 are done in excel.