Adjust $\hat{R}$ for errors

Steps

① ENTER $\hat{R}, N_v, N$

② ENTER Assumed values for P_L, r_v and f

③ Solve the following eq. for $\hat{R}_{Adj}$

$$\hat{R} - \left[\frac{\hat{R}_{adj}(1+f) P_L r_v (N-N_v)}{(1+f) N_v \hat{R}_{adj}(1-P_L r_v) - (1+f) N_v + N r_v} \right] = 0$$

Approaches to solve for $\hat{R}_{adj}$

(1) Is there a good `R Routine to solve?

(2) Alternatively use Bruteforce: line search over 10 possible values for $\hat{R}_{adj}$,

eg $\hat{R}_{adj} = .01, .02, \ldots, 1, 1.01, \ldots, 10.$

pick the $\hat{R}_{adj}$ that makes eq above closest to 0.