

c) Your friend claims their objective can be even more effective if ϵ is chosen more carefully. Explain how.

If ϵ^* is chosen to be the actual irreducible error, then $|R(g) - \epsilon| + \epsilon$ correctly reflects error due to bias and variance.

Tuning ϵ can yield a better bias/variance balance. Decreasing ϵ can lead to lower bias but higher variance while increasing ϵ will do the opposite. Time to find the best balance!