Proof Without Words: Tangent of the Sum

\[ AC = 1 \]
\[ BC = \tan \alpha \quad \Rightarrow \]
\[ DC = \tan \alpha \tan \beta \quad \Rightarrow \]
\[ EC = \tan \beta \]
\[ DF = EB \quad \Rightarrow \]
\[ \tan(\alpha + \beta) = \frac{\tan \alpha + \tan \beta}{1 - \tan \alpha \tan \beta} \]

—Sidney H. Kung
Cupertino, CA 95014-2292
sidneykung@yahoo.com

An Elementary Proof of the Error Estimates in Simpson’s Rule

D. D. Hai
Mississippi State University
Mississippi State, MS 39762

R. C. Smith
Mississippi State University
Mississippi State, MS 39762

Recently, Cruz-Uribe and Neugebauer [1] gave an elementary proof of error estimates for the Trapezoidal rule, which based on integration by parts “backwards.” However, they were unable to extend their method to the error estimates in Simpson’s rule. In