A. Let \( f(x) = \sqrt{x} + 1 \). What is the maximum error we would expect when using \( T_2^3 \{ f(x) \} \) to estimate \( \sqrt{4.1} \)?

B. Let \( f(x) = \cos x \). What is the maximum error we would expect when using \( T_4 \{ f(x) \} \) to estimate \( \cos(1) \)?

C. Let \( f(x) = e^{\sin x} \). What is the maximum error we would expect when using \( T_2 \{ f(x) \} \) to estimate \( e^{\sin 0.5} \)?

D. Let \( f(x) = e^x \). Find an \( n \), such that \( R_n \{ f(x) \} \) is less than 0.001 when \( x = 1 \).

E. Let \( f(x) = \sin x \). Find an \( n \), such that \( R_n \{ f(x) \} \) is less than 0.0005 when \( x = 0.5 \).

F. Let \( f(x) = \ln(x + 1) \). Find an \( n \), such that \( R_n \{ f(x) \} \) is less than \( 10^{-3} \) when approximating \( \ln(2) \).