

Best Approximation of Circular Arcs of Degree Ten with Twenty One Equioscillations

Abedallah Rababah

Department of Mathematics, Jordan University of Science and Technology,
Jordan

E-mail: rababah@just.edu.jo

ABSTRACT

A polynomial approximation of degree ten for circular arcs is considered. The approximation order is twenty with twenty one equioscillations in the uniform error function rather than thirteen times that are mathematically guaranteed by the Borel and Chebyshev theorems. We also examine the Extrema and roots of the error function.