

Li, Xin; Wang, Lu; Lin, Jinhua; Han, Dong; Gu, Deshan

Four methods of computing e and comparing the precision. (Chinese. English summary)

Zbl 1228.65029

J. Northeast Norm. Univ., Nat. Sci. Ed. 42, No. 4, 57-61 (2010).

Summary: Three calculation methods are designed by Visual C++6.0. They compute the mathematical constant e respectively by limit, progression and integral. At last, the computer computes e according to the human method of computation. The result computed by limit or integral can be accurate to 7 decimal places. The result computed by progression can be accurate to 15 decimal places. The result computed according to the human method of computation can be accurate to 800 decimal places.

MSC:

- 65D20 Computation of special functions and constants, construction of tables
- 26A09 Elementary functions
- 33B10 Exponential and trigonometric functions
- 33F05 Numerical approximation and evaluation of special functions

Keywords:

Euler constant e ; mathematical constant e ; Visual C++6.0; precision; human method of computation

Software:

Visual C++