Paper title

Newton Forward Interpolation: Representation of Numerical data by a polynomial curve.

Availability

What, Why and How

What:

a) Interpolation

b) Newtons Forward Interpolation Formula

c) Representation of Numerical data by a polynomial curve

d) An example of application of formula

e) Valid condition

Why:

In order to introduce with a new approach (an extended version of N.F.I) which has been derived from

Newton's forward interpolation formula by which we can

- ✓ Reduce the numerical computation associated to the repeated applications
- ✓ Compute a large number of interpolated values
- ✓ Represent the numerical data on a pair of variables by a polynomial curve
- ✓ Familiar with real life application of the formula

How:

After researching limitations and get rid of these (repeated numerical computations from the given data and computing a large number of interpolated values) think of an approach which consists of the representation of the given numerical data by a suitable polynomial and then compute the value of the dependent variable from the polynomial corresponding to any given value of the independent variable.

Limitations

a) A voltage-current characteristic of a zener diode.
b) The interpolating polynomial has degree four, five, six for five or five data points.
c) Not suitable everywhere because it produces a massive error.

Oncoming Activities

Any kinds of estimations with a large number of interpolated values we can find out our predicted value (approx.) by this new approach.