Numerical Methods

Python Overview

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Exponential function

$$f(x) = e^x$$

- The graph passes through the point (0,1).
- The range is y>0.
- The graph is increasing.

Practice

Which function grows faster?

x^2 or 2^x

Student Marks

Name	Math	Programming	Thermodynamics	Mechanics
Amit	24	44	36	36
Bhavna	52	57	68	76
Chetan	66	53	69	73
Deepak	85	40	86	72
Elizabeth	15	47	25	28
Farah	79	72	82	91

i. Create a ***6×4*** matrix **allMarks** to contain marks for all courses
ii. Scale down all the marks in *20*.
iii. Extract Chetan's mark and show his total marks.
iv. Show average marks of '**Thermodynamics**' and '**mechanics**' courses.

Revisit : True Error

True Error = True Value - Approximate Value

Relative True Error = True Error / True Value

Revisit : Approximate Error

Approximate Error = Present Approximation - Previous Approximation

Relative Approximate Error = Approximate Error / Present Value