

Material

Ch. 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11

Topics

Ch 00

TOC. No MAPLE programming things.

Ch 01

All intro things. Working & programming in MAPLE starts in Ch 02.

Ch 02

History of Maple.

Basic architecture.

Starting Maple.

Using Help.

Creating a worksheet (create, open, close worksheets).

Ch 03

Set, Lists, Vectors, Arrays

Define, initialize.

Plots

Make basic plots

FOR loop

For-from version

Ch 04

FOR loop

More for-from

For-in version

IF statement

PROCEDURES (proc)

Basic syntax

Calling a proc

Using 'return'

Ch 05

Call a proc from within another proc.

Using output parameters (in proc)

Ch 06

There is no Ch 06. This was around the MT week.

Ch 07

Some more examples with procedures
Rules of evaluation in procedures (Rule 1 & Rule 2)
Expressions
Operands and Types
 Operands
Types
What can do with types
What can do with operands
Quotes and Strings
Numbers
 'evalf'
Lists and Points

Ch 08

Tables and Arrays
plot (f, h, v, o)
3D plotting

Ch 09

Substitution, evaluation, solving
Solving equations
Solve inequalities
Extrema (min and max points of functions)
Solving Systems of Equations
Solve systems of linear equations by using Matrices and Vectors.
Create a matrix from lists.
Create matrix from vectors.
Solving systems of linear equations by using Matrices and Vectors.
Calculus :: limit
Calculus :: Tangent
Slopes and derivatives
Partial derivatives
Integrals

Ch 10

Recursion
Sorting

Ch 11

Selection sort
Toward implementing PSelectSort()

Implementation of PSelectSort()

- Get the size of a list

- Get the location of the smallest item in a list

- Exchange 1st item of list with smallest item (swap())

'Remove' 1st item from a list

Bubble Sort

- Bubble Sort implementation

Random numbers, stats etc