Symbolic math

1. Basis concept

1.1 Basics

>> syms x % define x as a variable

1. Plot functions
2. Plot functions – another
3. Simplify a complex function

numerical error: 🡪 neglizable

1.2 Solve Algebraic equation

* 1. Solving algebraic equation with unknown coefficients

Find x s.t.

* 1. Solving linear equations
  2. Linear equations with unknown coefficients
  3. Non-linear equation

find s.t.

1. Derivatives

2.1 Basics

* d(sin(x))/dx
* d(sin(cos(x))/dx

2.2 differential equation

1) the first order homogeneous

2) the first order inhomogeneous

* solution:
* for
* for x(0) = 1
* Circuit analysis

Problem : if , find

