#VOP example from my own mind

Original problem:

Numerical analysis:

Symbolic analysis:

Wronskian

All the following done with wxMaxima

This time, we want a particular set of ’s and will find the values of the initial conditions that achieve this

Works!

Chart

Description automatically generated

VOP (inhomogenous)

Now suppose that we assume but with . The first derivative is is

Requiring that the Wronskian continues to obey we get

Matching terms with the earlier form means that

or