

MTH 337

Day 11 Tuesday, Feb 19, 2008

Floating-point arithmetic

Demmel example

Relative and absolute accuracy: which is more meaningful?

Quadratic formula

Avoidance:

reformulating in mathematically equivalent way

approximations that are more accurate than exact formula (!)

LyX document (first exposure to LyX/LaTeX)

Age-structured population models

Social Security planning and viability, baby booms & echoes

age classes, birth rates, death rates

Exercise: devise, and implement in Maple, a population model that could be used by someone to investigate the future solvency of the US Social Security program.

Maple animations

`convert(x,string);`

`cat(string1,string2);`

`plots[display](..., insequence=true);`

http://orange.math.buffalo.edu/337/test_maple_animation_export.txt