

MTH 337

Day 12 Thursday, Feb 21, 2008

Solving equations (a.k.a. finding roots)

mystery_f.txt: trial and error?
false position
Newton's method
bisection
characterizing convergence: linear, quadratic
stopping criteria
multiple roots: HW 5

Creating images directly

Quiz: postponed to Tuesday.

Lab exercise: Age-structured population models

Social Security planning and viability, baby booms & echoes
age classes, birth rates, death rates
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.

Once you have decided on some sensible/simple birth and death rates, investigate the transient and long term dynamics of your model.
Can you simulate a baby boom and does it have “echoes”?

If you have time, begin to explore the issue of SS viability.