

538 Exam #1 suggestions

- Understand Theorems 7.1 & 7.2 & apply to given IVPs.
- Obtain T-series approx to solution of a scalar ODE
- Know equations to be satisfied by ^{coefs of} a k -step LMF

Solve these equations in a simple case (small k).

- Derive or write down char poly for a given k -step LMF applied to $y' = \lambda y$.

Determine (some aspects of) region of stability

- Know meaning of stable, consistent, convergent, A-stable and classify methods as such.
- Use a LMF (small k) to take a step or two on a given IVP