First Order versus Higher Order

construction of datatypes

- First order: everything inside set theory
  - well-founded recursion
    - Isabelle's `wfrec` used to define numbers
  - recursion on rank of set
    - Isabelle's `Vrec` used to define lists
  - these methods powerful, but 'advanced'
- Higher order: constructions possible in logic
  - use normal HOL methods
  - then map into type V
  - more 'high level' and light weight?