# Making Classes

#### • Suppose:

- Want to create a class that can compute the first n items in some mathematical sequence. More, you want that class to work for any mathematical sequence and you want your class to never have to be rewritten
- What do you do???
  - What kind of class structure does this suggest?

### Classes for mathSeries

- Interpretation:
  - Java SeqPrinter SeqName N
  - Where:
    - SeqPrinter is the name of the main class
    - SeqName is the name of a class that actually does the computations
    - N is the number of items from the sequence to print
- Important java for this task
  - CName s = (CName)Class.forName
    ("name").newInstance();b

## Extends and Implements

- •Sometimes are interchangable
- •Extends:
  - Used when there are well defined methods that you want to inherit
  - E.g., Adult extends Person
- •Implements
  - Used when there are no methods that you want to inherit but there are method names that you want to overwrite
  - Can both extend and implement
    - an advantage of implements
  - Some OO languages do not have anything like this
- Why choose
  - Sometimes just a matter of convenience

### Bank

- Suppose you want to simulate a bank
- What classes?
- What inheritance?
- Where do instances go?
- Does OO help or hinder?