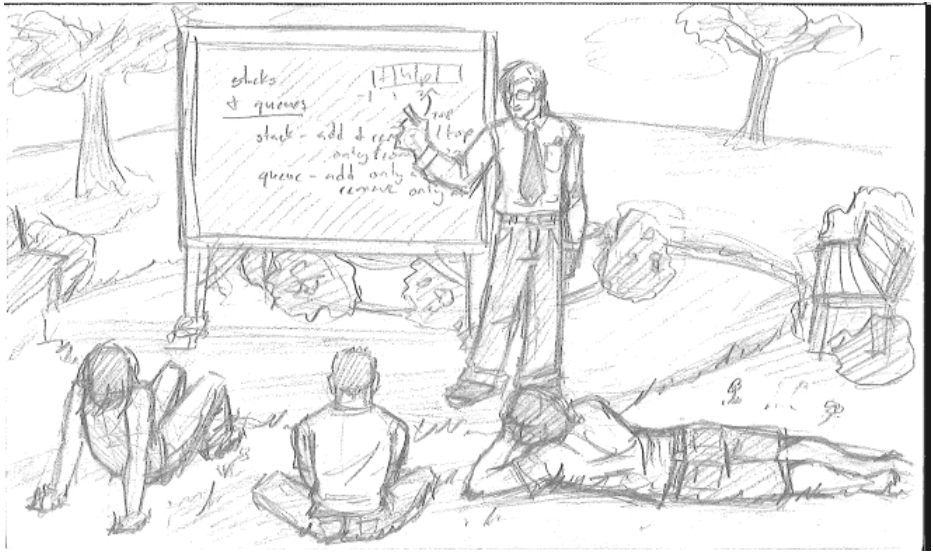
Abstract data types "part II" unit:

- Nested classes (last week Monday)
- Generics (last week Wednesday and Friday, plus lab Thursday)
- Back to ADTs: Stacks and Queues (this week, all week)

Today (and Wednesday):

- Review of abstract datatypes
- Definition of stacks and queues
- Implementation of stacks in Java
  - Using an array
  - Using a linked list
- Implementation of queues
- Stacks and queues in everyday life
- Implementing stacks and queues in C


stacks
& queues
stack - add & remove only
queue - add only
remove only

name	**Stack**	**Queue**
ordering	LIFO	FIFO
metaphor	Pez dispenser, stack of plates or books	Line of people
operations	push pop top (element, peek) is empty is full	add (offer) remove (poll) front (element, peek) is empty is full
applications	Palindrome testing, reversal, anything with nested structure	worklist, print queue

Coming up:

- **Due Thurs, Apr 2.** *Read prelab and take quiz (coming soon. . .)*
- **Due Wed, Apr 8.** *Do Project 6, RPN calculator*

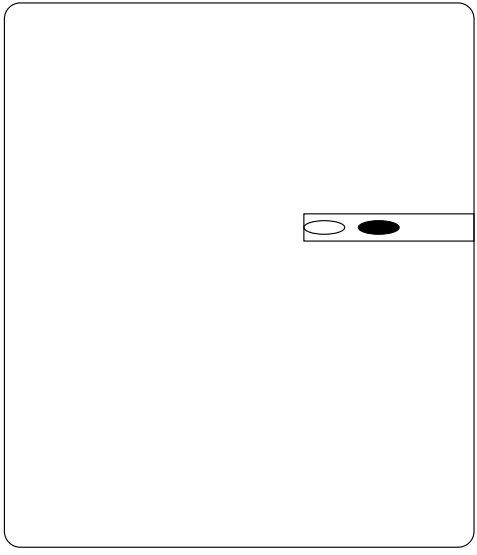
Chiasmus

Then the steward said within himself, What shall I do? for my lord taketh away from me the stewardship: I cannot dig; to beg I am ashamed.
Luke 16:3 (KJV)

Nested sentences

The class, which on every other Wednesday—the day when chicken fingers, everyone's favorite lunch, were most likely to be served—had let out in time to head-off the 12:45 rush, went late.

Moving cars



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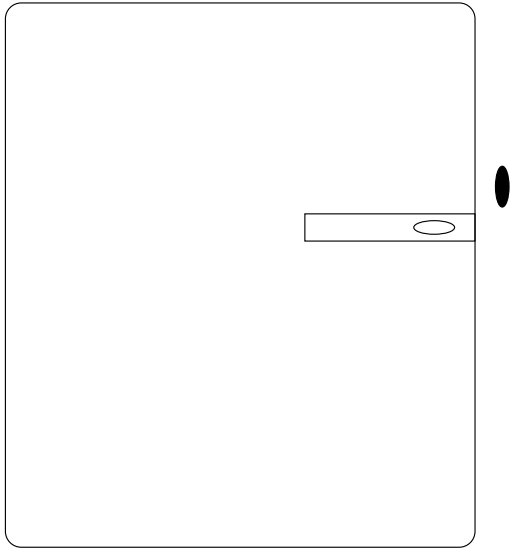

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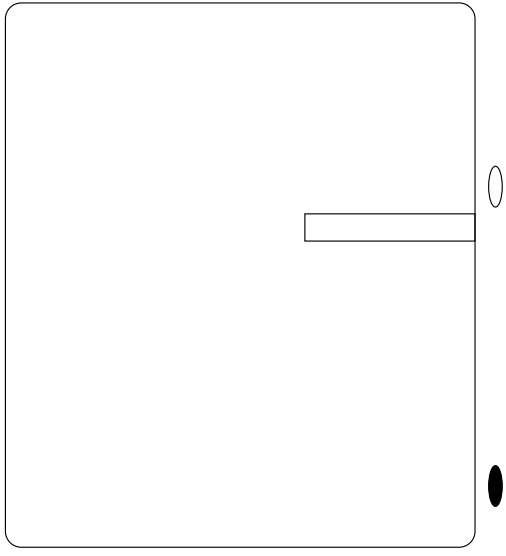

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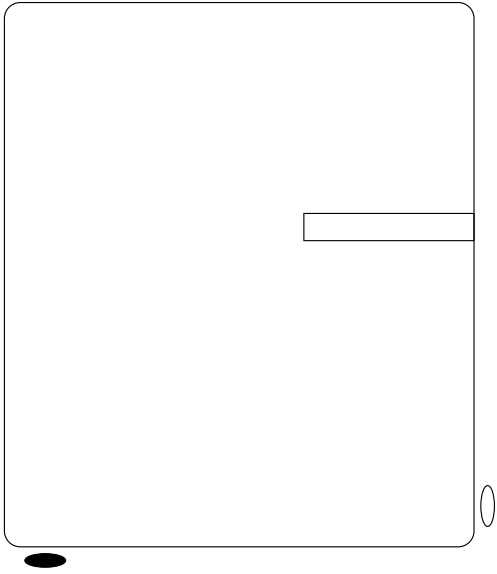

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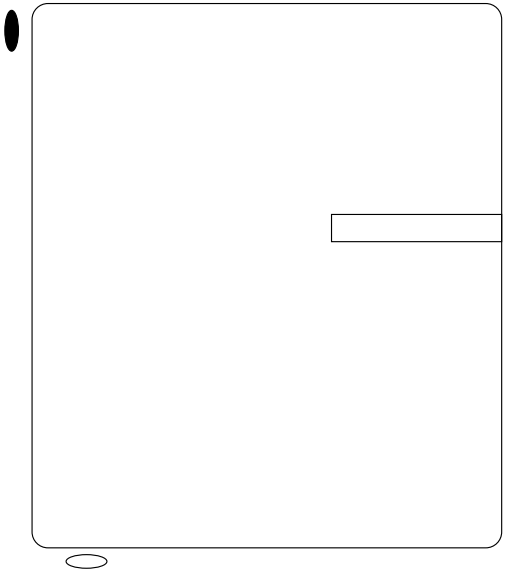

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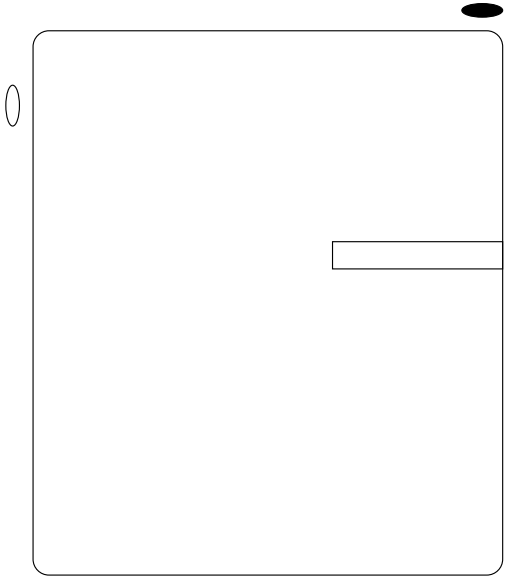

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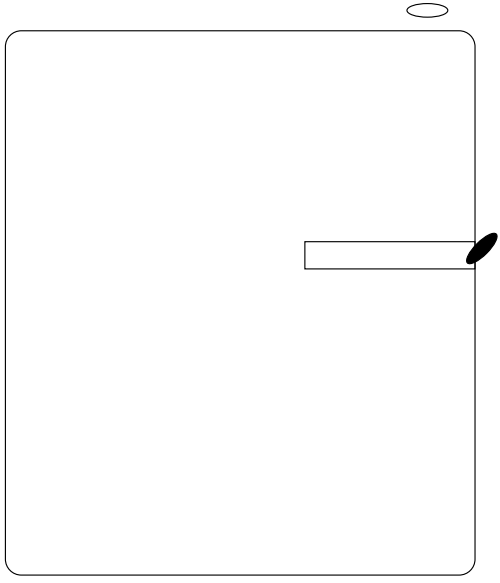

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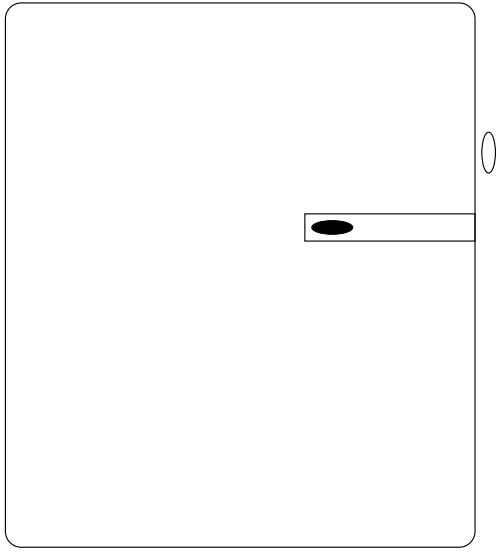
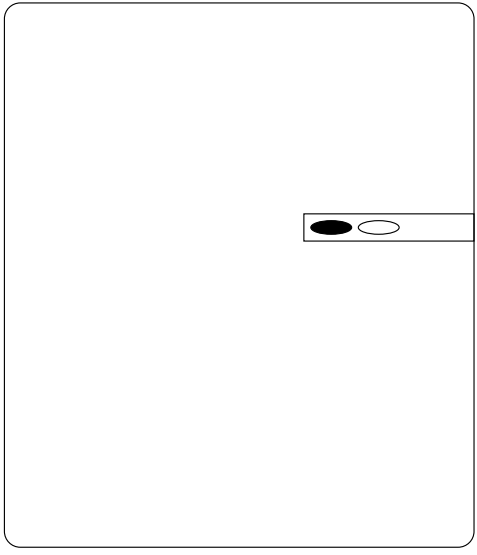
Moving cars