Overview

• Queues in recap
• Exam review
Addressing Efficiency
Problem

• Without diverging too much from a standard linked list, how might we address this efficiency problem?

• **Hint:** head essentially teleports us to the front of the list

• We could add a special end pointer to the end of the list
**Before** enqueue(10)

**After** enqueue(10) - add directly to end
Questions

• For a queue of empty length, what is head and end?

• For a queue of length one, what is head and end?
Questions

• For a queue of empty length, what is `head` and `end`?
  • `NULL`

• For a queue of length one, what is `head` and `end`?
  • The same element
Extra Bookkeeping

- Need to ensure that `end` always points to the last element
Exam Review