

# QUEUES

# QUEUE ADT

- Collection of elements
- First in - first out (FIFO)
- Primary operations:
  - enqueue (add to end)
  - dequeue (remove from front)
- Like stacks, linear/sequential - aka, have an ordering

## REAL LIFE EXAMPLES:

- Lines anywhere:
  - store
  - amusement park
  - sports arenas

## WHEN TO USE?

- Like stacks
- Depends on the problem
- Not useful for all problems
- Really useful for some problems, algorithms
- Again, think about problem/algorithm first

# CODING APPLICATIONS

- Extremely useful for implementing graph/tree problems (BFS)
  - Shortest path
  - Island finding
- OS scheduling
- Network connections, routing