

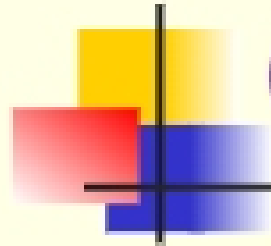


# Informed search algorithms

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## Chapter 4



# Outline

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- Best-first search
- Greedy best-first search
- $A^*$  search
- Heuristics
- Memory Bounded  $A^*$  Search



# Best-first search

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- Idea: use an **evaluation function**  $f(n)$  for each node
  - $f(n)$  provides an estimate for the total cost.
  - Expand the node  $n$  with smallest  $f(n)$ .
- Implementation:  
Order the nodes in fringe increasing order of cost.
- Special cases:
  - greedy best-first search
  - A\* search