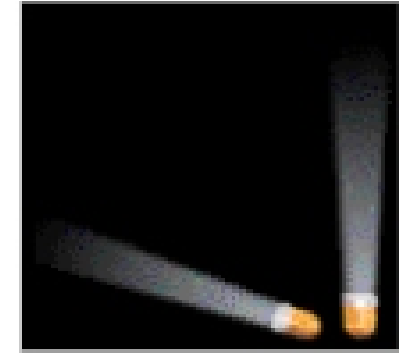


# Divide And Conquer



- Distinguish between small and large instances.
- Small instances solved differently from large ones.

# Small And Large Instance

- Small instance.
  - Sort a list that has  $n \leq 10$  elements.
  - Find the minimum of  $n \leq 2$  elements.
- Large instance.
  - Sort a list that has  $n > 10$  elements.
  - Find the minimum of  $n > 2$  elements.

# Solving A Small Instance

- A small instance is solved using some direct/simple strategy.
  - Sort a list that has  $n \leq 10$  elements.
    - Use count, insertion, bubble, or selection sort.
  - Find the minimum of  $n \leq 2$  elements.
    - When  $n = 0$ , there is no minimum element.
    - When  $n = 1$ , the single element is the minimum.
    - When  $n = 2$ , compare the two elements and determine which is smaller.