

Empty Queue Revisited

- Will $\text{front} = (\text{back} + 1) \% \text{arraysize}$ always be true for an empty queue?

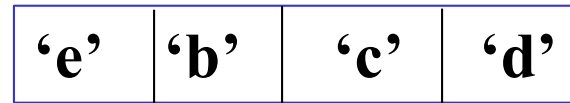
back front

-1 0

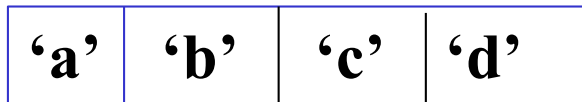


back front

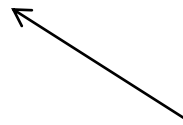
0 1



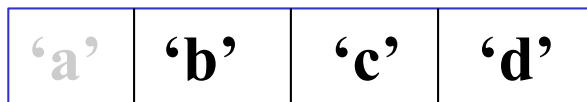
3 0



here
too



3 1



front =? $(\text{back} + 1) \% \text{arraysize}$

1 = 0 + 1 %

BUT IT'S FULL, not EMPTY!
There are various solutions, but
easiest to keep track of the size.