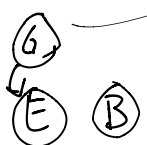
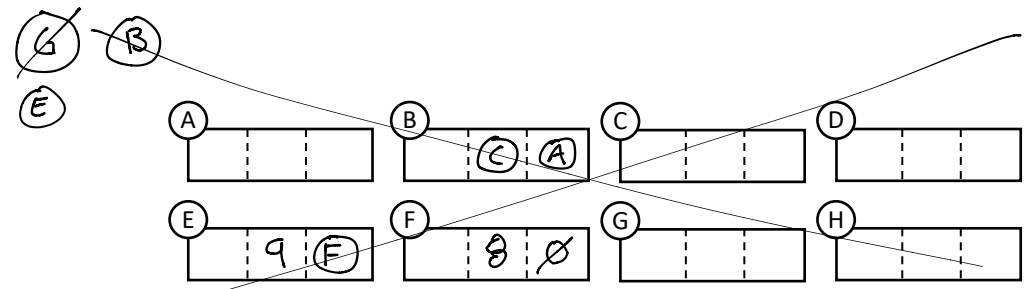
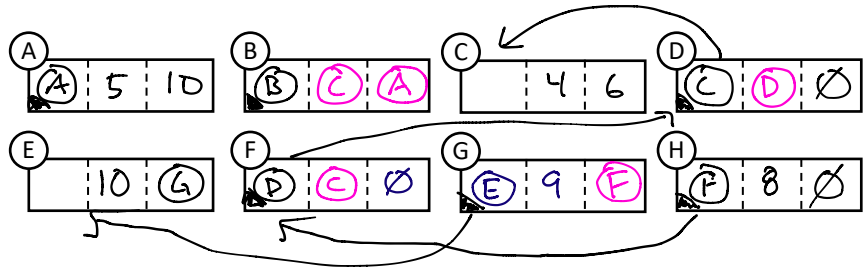
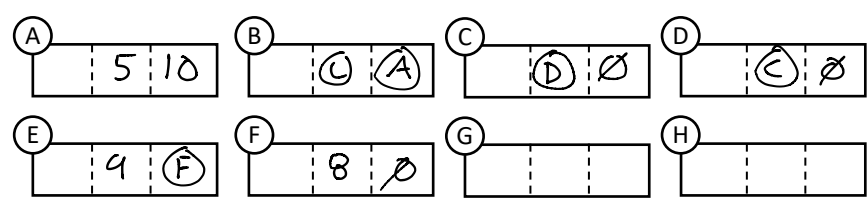


move_to = ~~A~~ ~~B~~ ~~C~~ ~~D~~ ~~E~~ ~~F~~ ~~G~~
 move_from = ~~A~~ ~~B~~ ~~C~~ ~~D~~ ~~E~~ ~~F~~ ~~G~~ ~~H~~



need to find root set, also



MARK

for each ref r in root set
mark_heap(r)

mark_heap(r):
 if *r == 1: return
 *r = 1
 for each ref r' in r:
 mark_heap(r')
 and save MAX_ADDR
 and save MIN_ADDR

Forward1():
 while move_from < MAX_ADDR
 if move_from -> marked:
 *move_from == 1
 move_from -> fwd = move_to
 move_to += 3 words
 move_from += 3 words

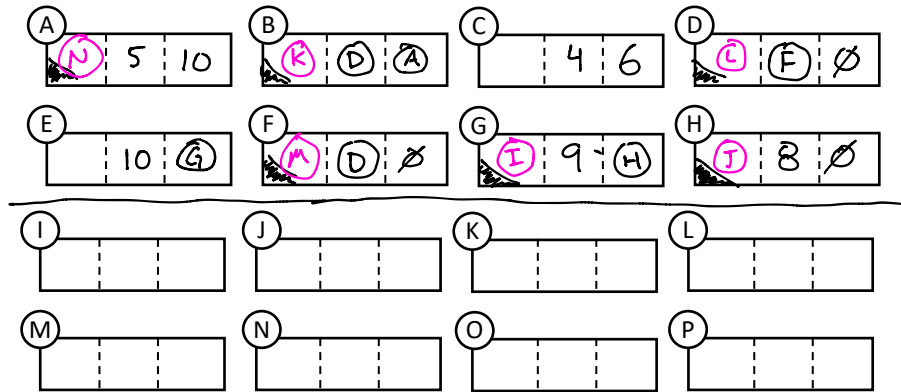
Forward2():
 traverse + update internal pointers

Compact()

- A: Traversal (mark)
- B: Iteration (fwd1)

Mark/Compact
 including "dead" data
 $O(\text{HEAP SIZE})$
 ~~$O(\text{LIVE DATA})$~~

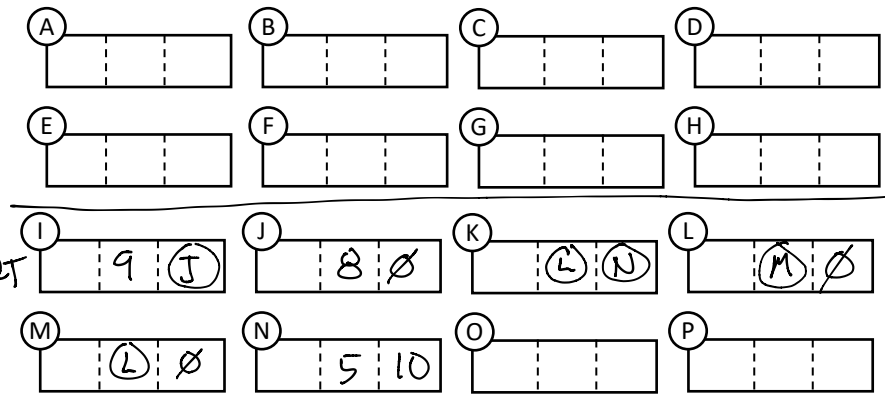
G B



mark():
for each ref in root set
mark_heap(ref)

mark_heap(ref)
if *ref != 0: return
*ref = next_addr()
for each r' in refs:
mark_heap(r')

updating fwdy ptrs
can be done w/ traverse

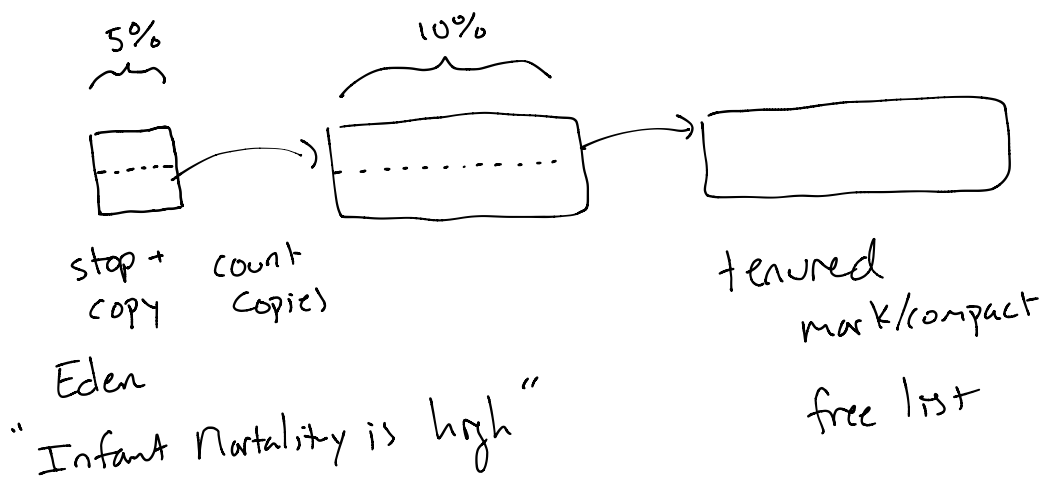


HEAP_START →

↑ r15

SEMI SPACE
SWAPPING
STOP + COPY

$O(\text{LIVEDATA})$



incremental
concurrent GC