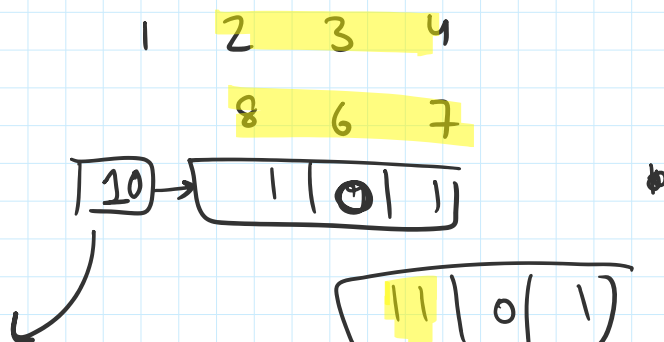
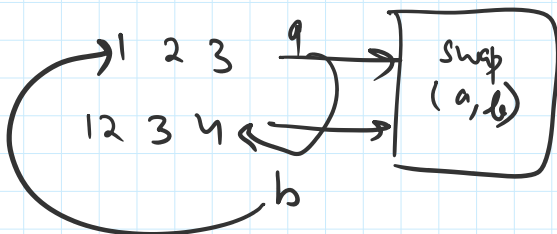
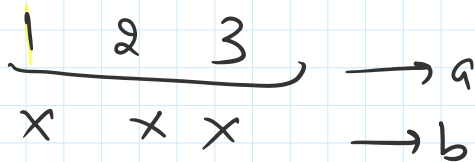
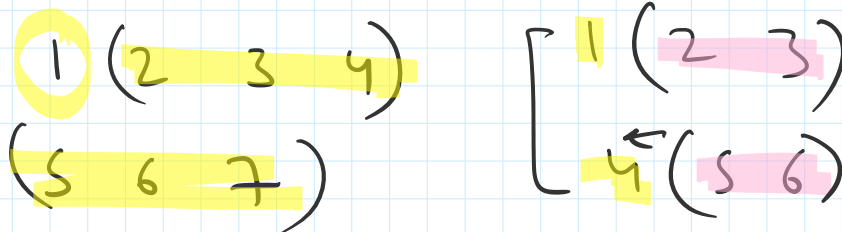
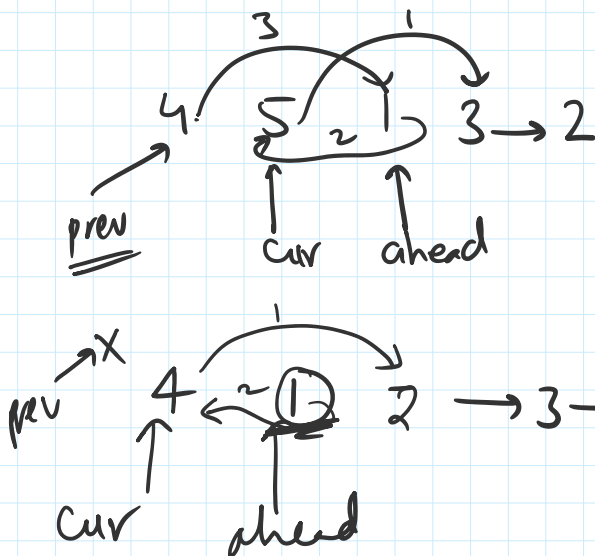
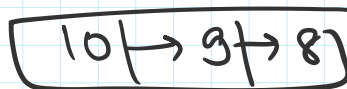
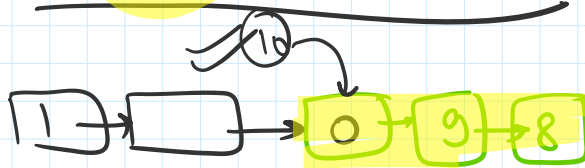
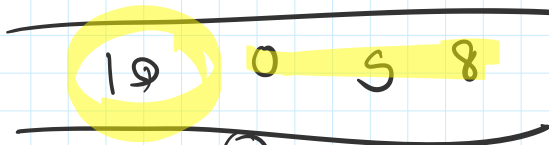
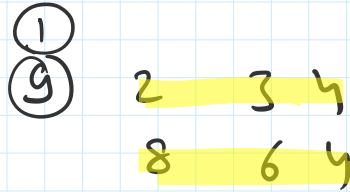
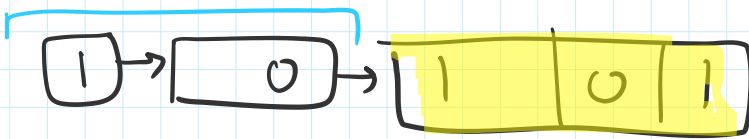
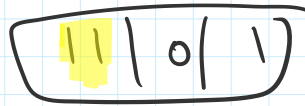


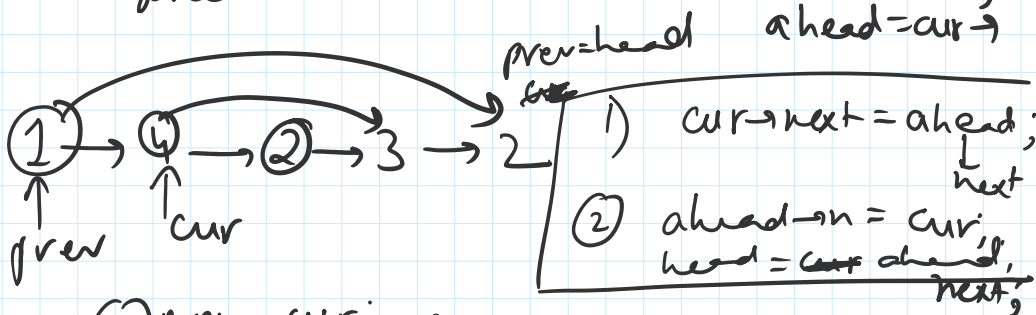
Add one

1 2 3 5 8 5 5  
↑





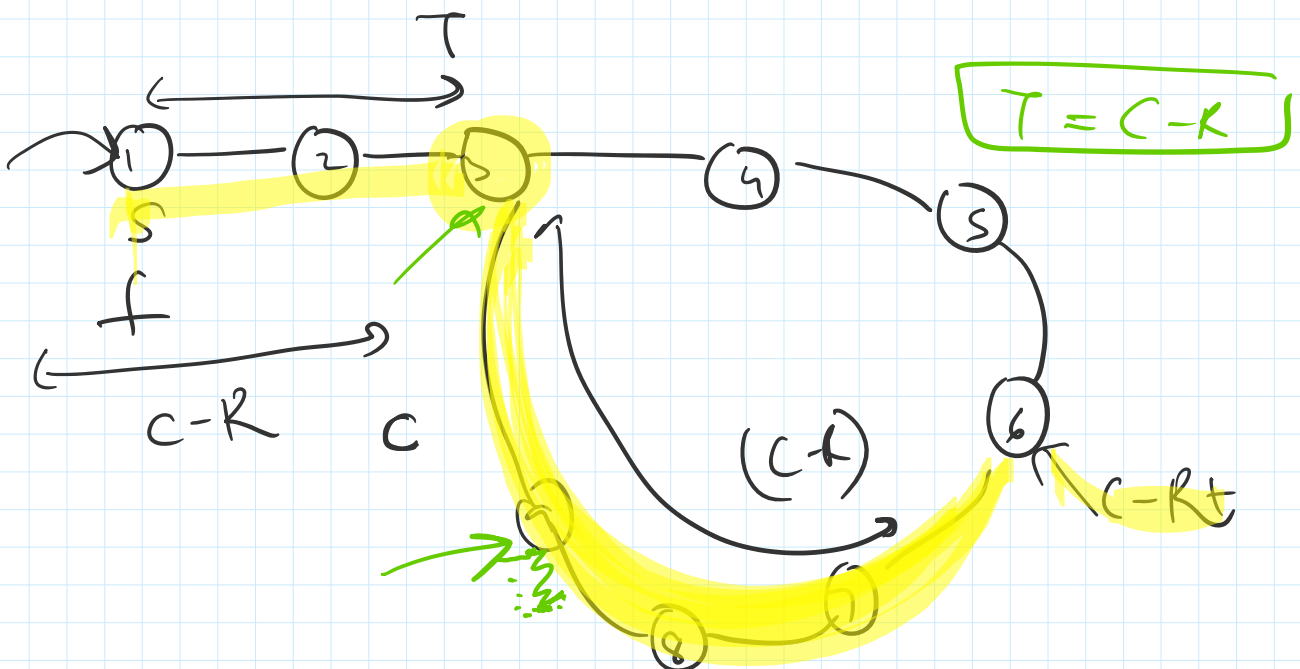
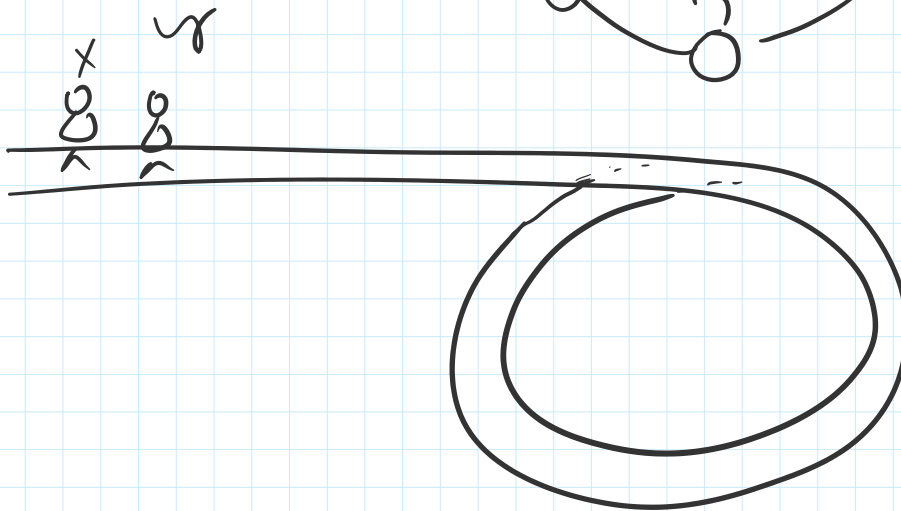
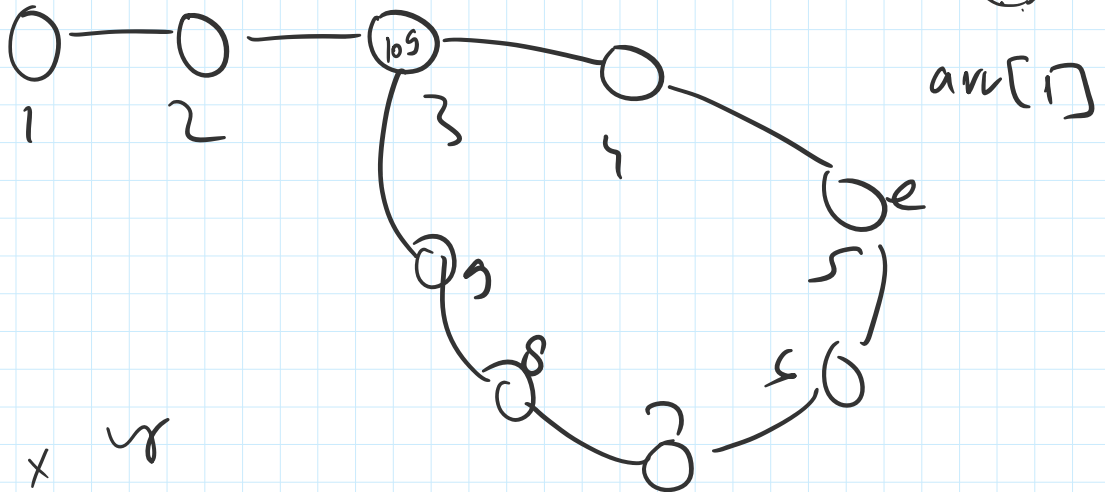
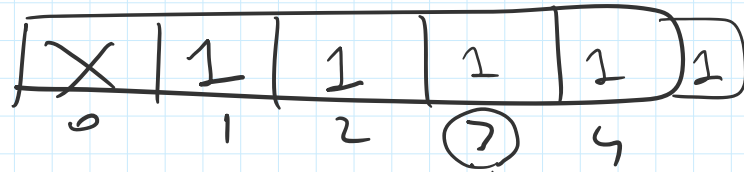
- 1)  $cur \rightarrow next = ahead \rightarrow next$ ,
- 2)  $ahead \rightarrow next = cur$ ;
- 3)  $prev \rightarrow next = ahead$ ;
- 4)  $prev = ahead$ ;  
 $ahead = cur$



- ⑥  $prev = cur$ ;
- ⑦  $cur = cur \rightarrow next$
- ⑧  $ahead = cur \rightarrow next$ .

①  $cur = cur \rightarrow next$

②  $ahead = cur \rightarrow next$ ;



Initial pos of  $C = T$

$$T = KC + R$$

Initial pos of  $C = T$

Initial pos of  $F = R$

$$T = RC + R$$

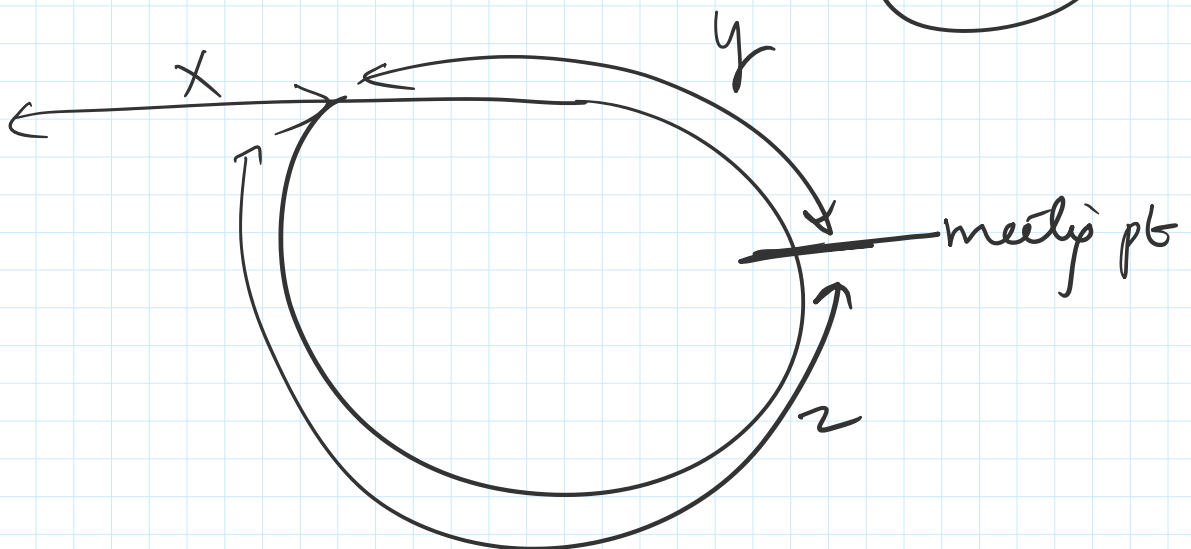
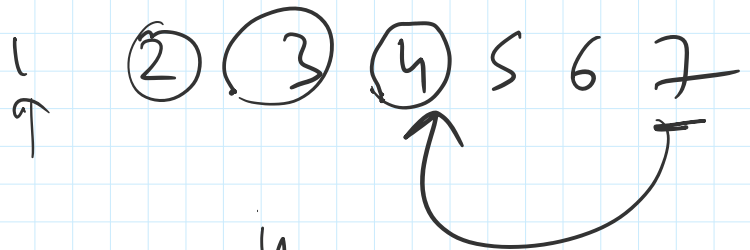
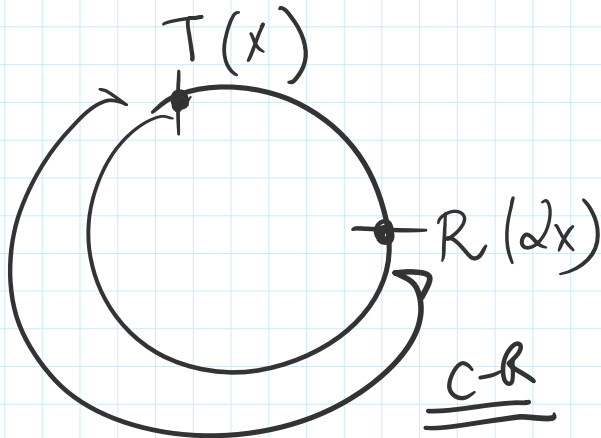
$$\underline{\underline{C-R}}$$

$$S = C - R$$

$$f = 2(C-R) + R = 2C - 2R + R = 2C - R$$

$$= \textcircled{C} + (C-R)$$

$$= \boxed{C-R}$$



$$d_s = x + y$$

$$d_f = x + y + z + y = x + (y+z) \cdot k + y$$

$$t_s = t_f$$

$$d_s = d_f$$

$$\underline{\underline{m - c}}$$

$$\frac{ds}{S_s} = \frac{df}{S_f}$$

$$\frac{m}{m/s} = s$$

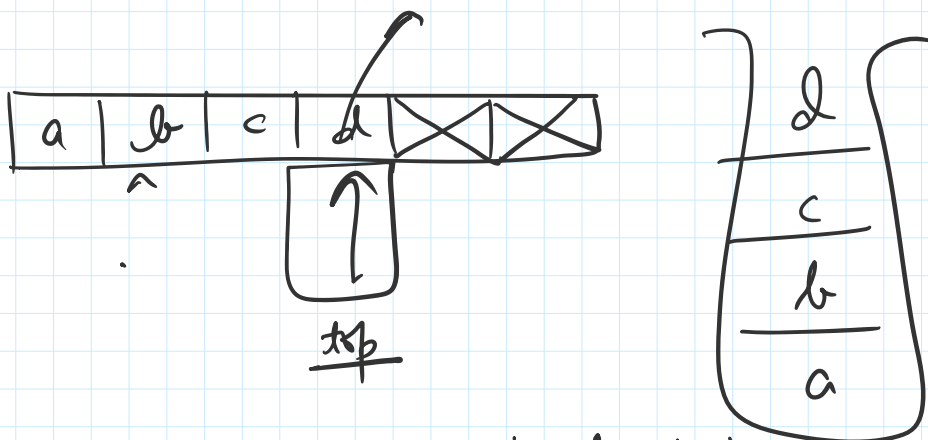
$$\frac{x+y}{1} = \frac{x + k(y+z) + y}{2}$$

$$2(x+y) = \cancel{x+y} + (y+z)k$$

$$\cancel{x+y} = (k-1)(y+z) + \cancel{(y+z)}$$

$$x = z + (k-1)(y+z)$$

Adapters → stacks/queues



Stack S; → insert push  
 → deletion pop  
 → read top

