Assignment 4

7) clients : $c_1, c_2 \dots c_n$

base stations : $b_1, b_2, b_3 \dots b_k$

- each client connect it exactly to one base station

Constraints:

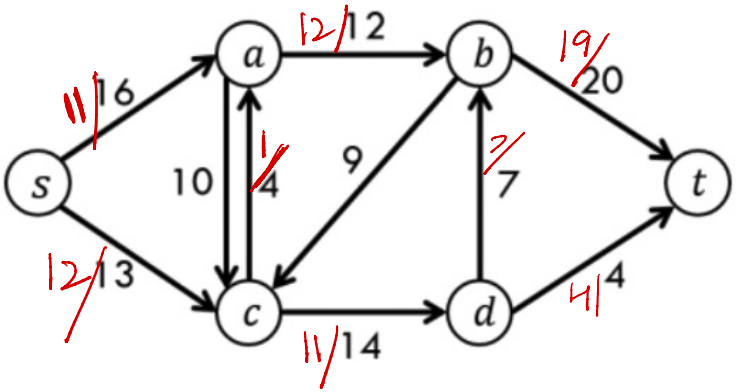
- A client can only be connected to a base station within distance R
- No more than L clients can be connedd to any single base station = I think this is the flow constraint.

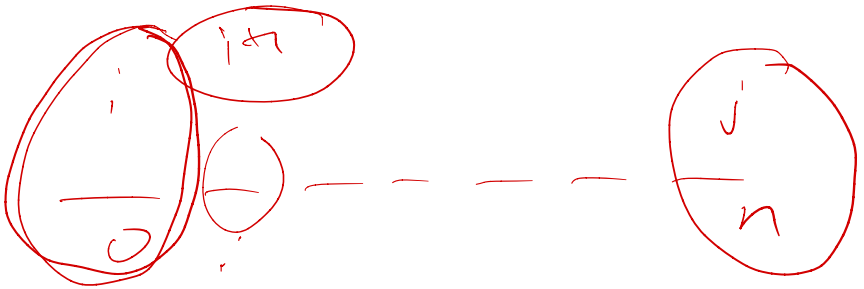
1) $b_0, b_1, \dots b_{n-1}$

nums [a, b, c ---] → numbers on balloons

nums [i-1] · nums [i] · nums [i+1] ...

basecase = nums [-1] : nums [n] = 1


s
a
b
c
d
t
11/16
12/12
19/20
10
1/4
9
2/7
12/13
11/14
4/4

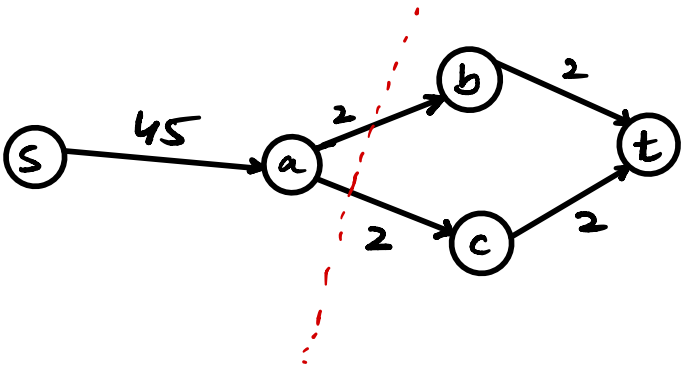


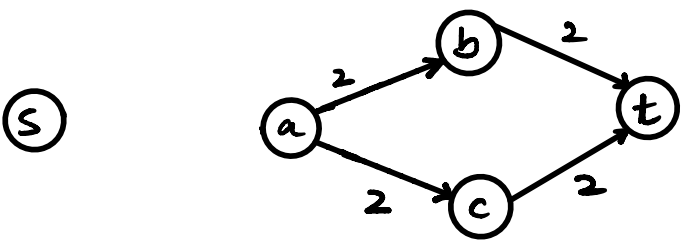
~~coin[i] + (OPT[i+1][j]~~

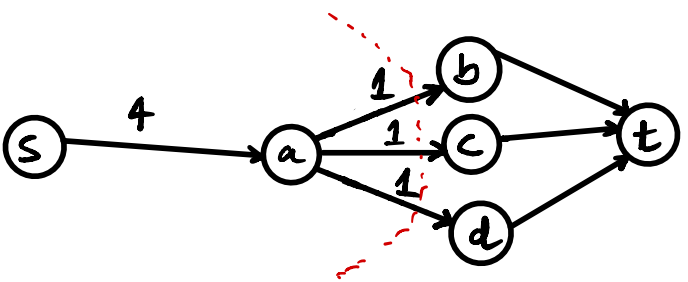
coin[i] + min(OPT[i+2][j], OPT[i+1][j-1])

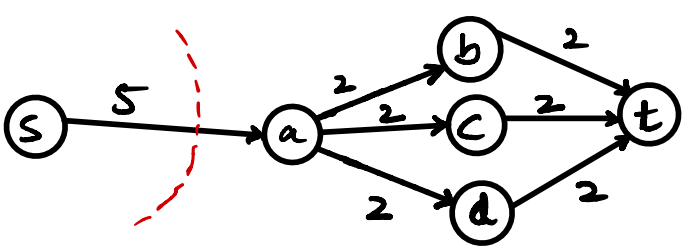
max

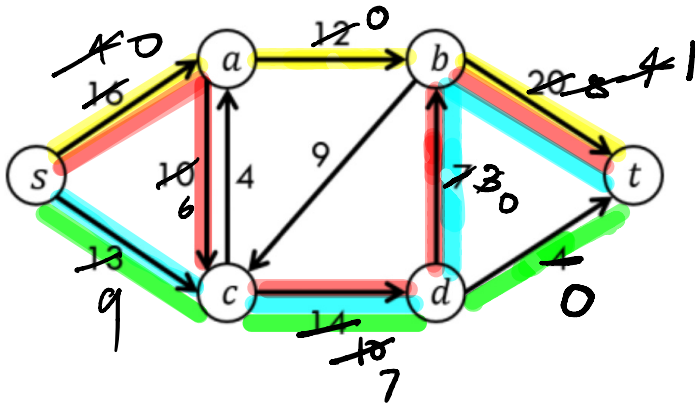
coin[j] + min(OPT[i+1][j-1], OPT[i][j-2])


s
45
a
2
b
2
t
2
c
2

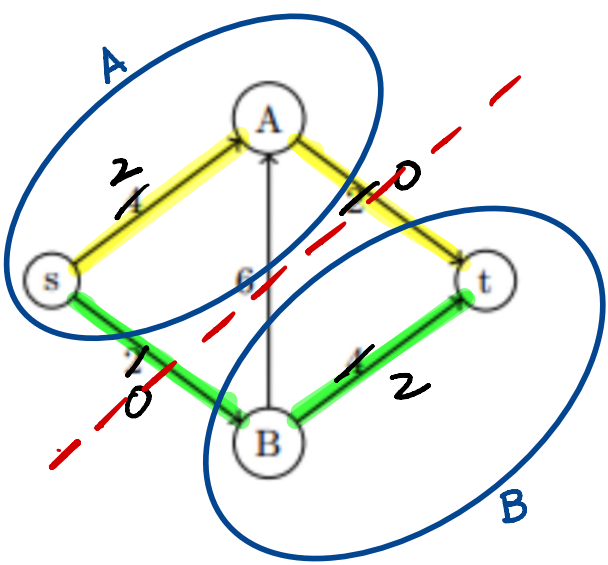

s
a
2
b
2
t
2
c
2


s
4
a
1
b
1
c
1
d
t

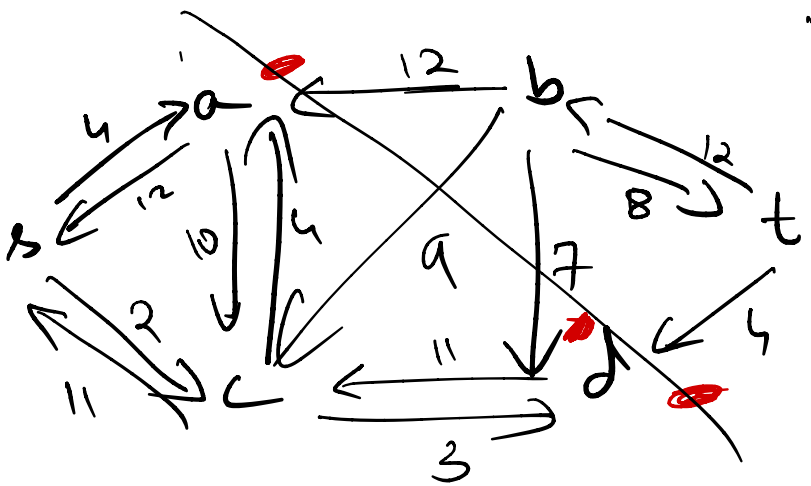

s
5
a
2
b
2
c
2
d
2
t
2



FLOW PATH CHOSEN	Residual Flow
s→a→b→t	12
s→a→c→d→b→t	4
s→c→d→b→t	3
s→c→d→t	4
Max Flow	23

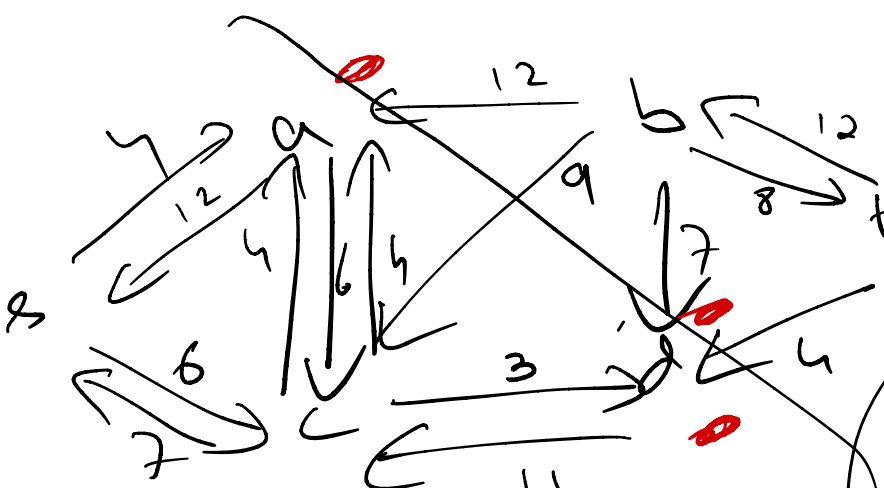


FLOW PATH CHOSEN	Residual Flow
s→A→t	2
s→B→t	2
Max Flow	4

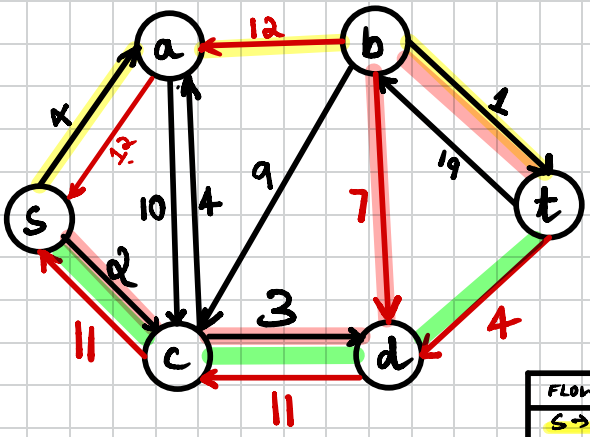


12+4+7

{sabt
{sct
{scbt



{sabt
{sacbt
{scbt



FLOW PATH CHOSEN	Residual Flow
s→a→b→t	12
s→c→d→b→t	7
s→c→a→t	4
Max Flow	23