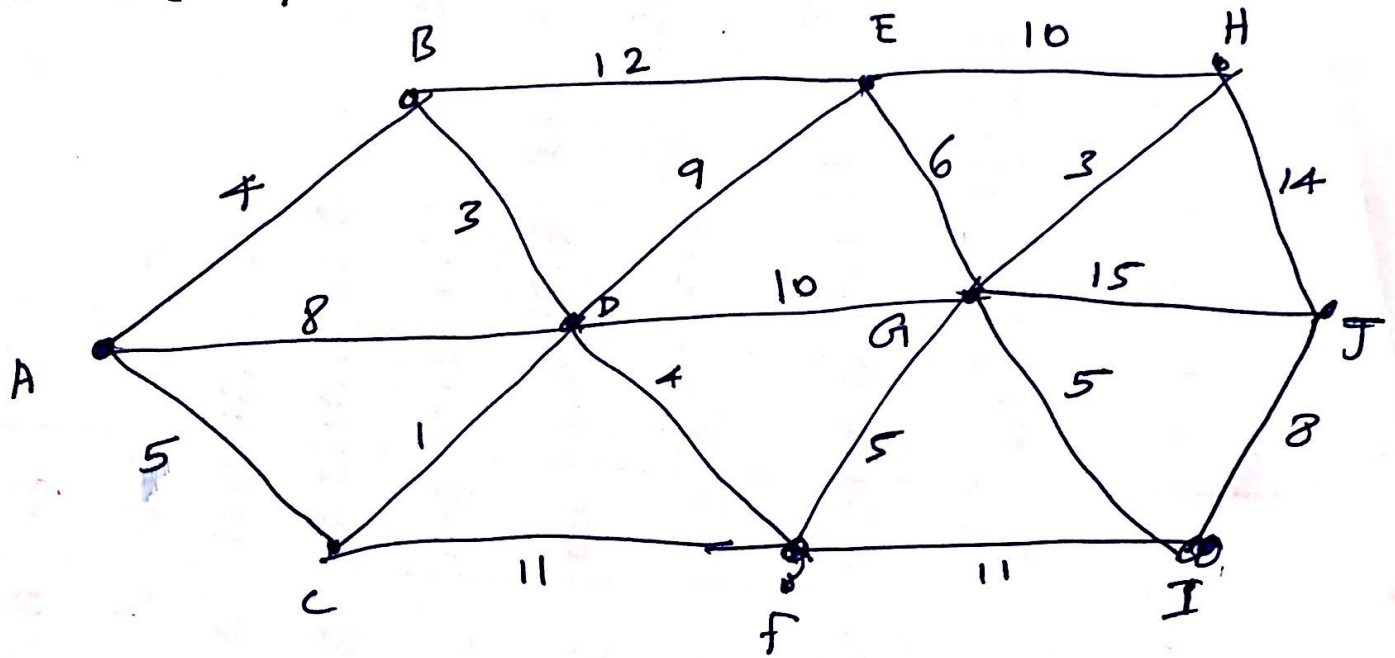


## TUTORIAL

Find the Shortest distance from A to J on the n/w below



~~A~~ → J → I → G → F → D → C → A

with cost of 28

Dis

step	Visited	A	B	C	D	E	F	G	H	I
1	A	(0, A)	(4, A)	(5, A)	(8, A)	∞	∞	∞	∞	∞
2	A, B	(0, A)	(4, A)	(5, A)	(7, B)	16, B	∞	∞	∞	∞
3	A, B, C	(0, A)	(4, A)	(5, A)	(6, C)	16, B	16, C	∞	∞	∞
4	A, B, C, D	(0, A)	(4, A)	(5, A)	(6, C)	15, D	(10, D)	16, D	∞	∞
5	A, B, C, D, F	(0, A)	(4, A)	(5, A)	(6, C)	15, D	(10, D)	15, F	25, F	26, F
6	A, B, C, D, F, E	(0, A)	(4, A)	(5, A)	(6, C)	8, D	(10, D)	15, F	18, G	20, G
7	A, B, C, D, F, E, G	(0, A)	(4, A)	(5, A)	(6, C)	15, D	(10, D)	15, F	18, G	20, G
8	A, B, C, D, F, E, G, H	(0, A)	(4, A)	(5, A)	(6, C)	15, D	(10, D)	15, F	18, G	20, G
	A, B, C, D, F, E, G, H, I	(0, A)	(4, A)	(5, A)	(6, C)	15, D	(10, D)	15, F	18, G	28, I



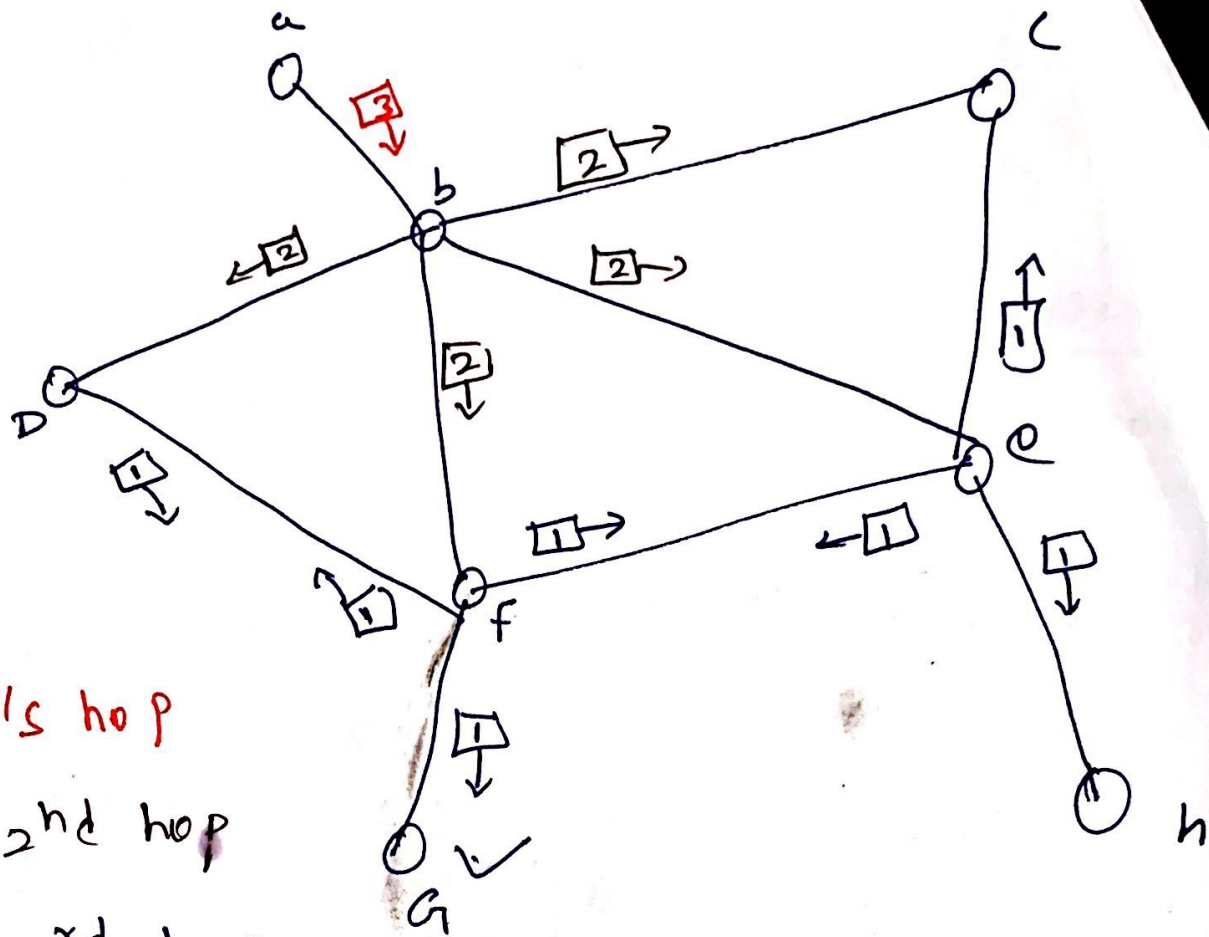
2.

Non-Hierarchical ab 1A  
(Next node from source)

Dest	Line	Hop
1a	-	-
1b	1b	1
1c	1c	1
1d	1c	2
1e	1c	3
1f	1b	2
2a	1b	4
2b	1b	5
2c	1b	6
2d	1b	5
2e	1b	4
3a	1b	5
3b	1b	4
3c	1b	4
3d	1b	3
3e	1b	4
3f	1b	5
3g	1b	4
3h	1b	5

Hierarchical ab 1A

Dest	Line	Hop
1a	-	-
1b	1b	1
1c	1c	1
1d	1c	2
1e	1c	3
1f	1b	2
2	1b	3
3	1b	3



$\boxed{1} \rightarrow 1^{st} \text{ hop}$

$\boxed{2} \rightarrow 2^{nd} \text{ hop}$

$\boxed{3} \rightarrow 3^{rd} \text{ hop}$

during 3<sup>rd</sup> hop data is received by the receiver.