Homework 4 (Answer)
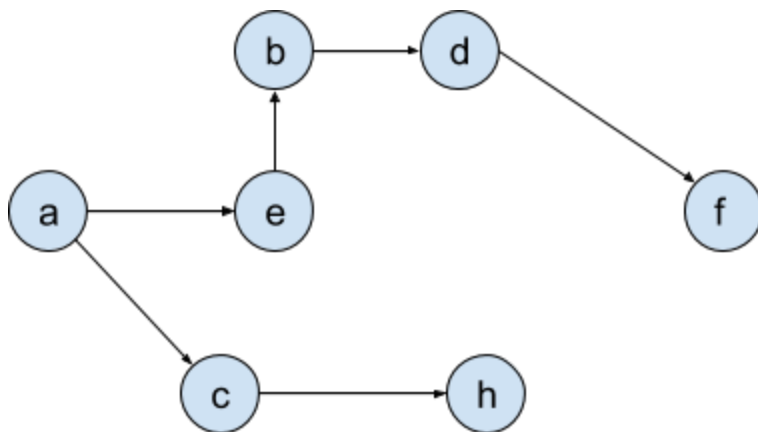
1.

In this problem, xy denotes cost x from node y to reach node in a column. For example, 3e means it takes cost 3 from node e.

1a
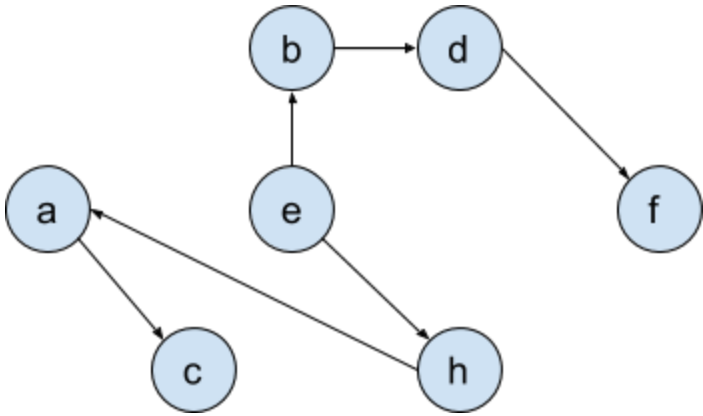
	a	b	c	d	e	f	h
a	0a	4a	3a	∞	2a	∞	∞
e		3e	3a	∞	2a	10e	6e
b		3e	3a	4b		10e	6e
c			3a	4b		10e	5c
d				4b		9d	5c
h						9d	5c
f						9d	

1b

	a	b	c	d	e	f	h
e	∞	1e	∞	∞	0e	8e	4e
b	∞	1e	∞	2b		8e	4e
d	∞		∞	2b		7d	4e

h	11h		∞			7d	4e
f	11h		∞			7d	
a	11h		14a				
c			14a				

2.
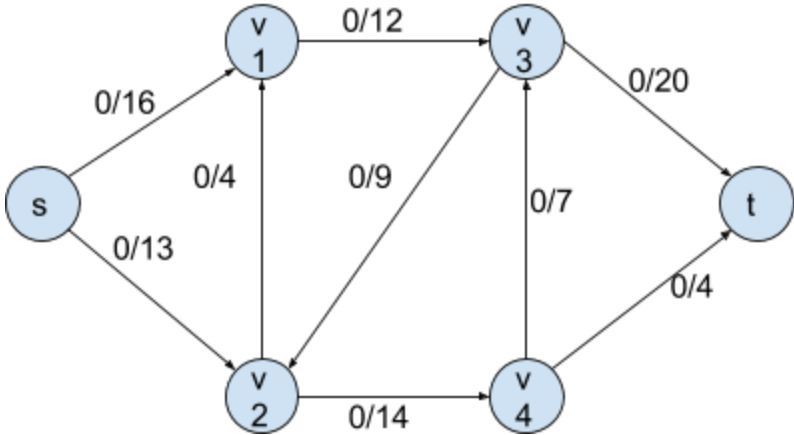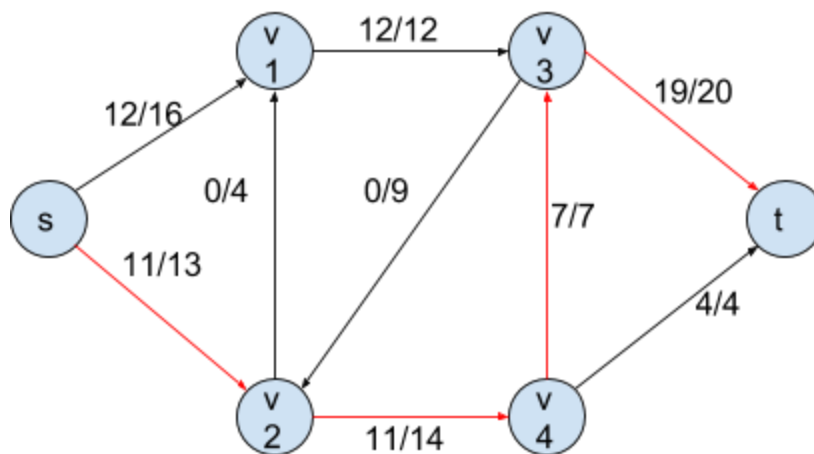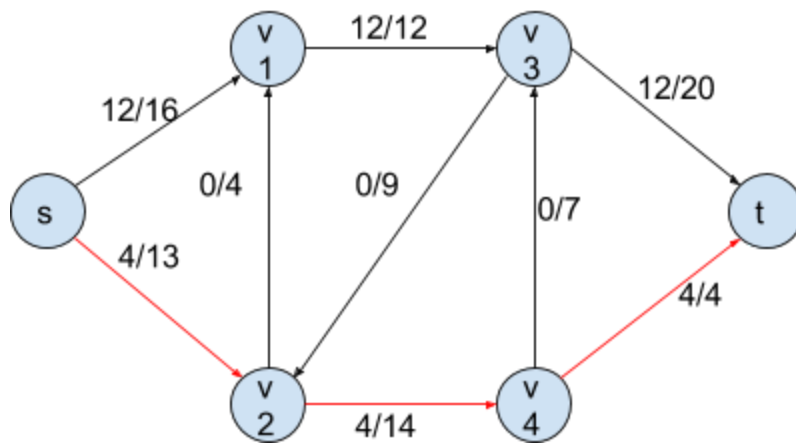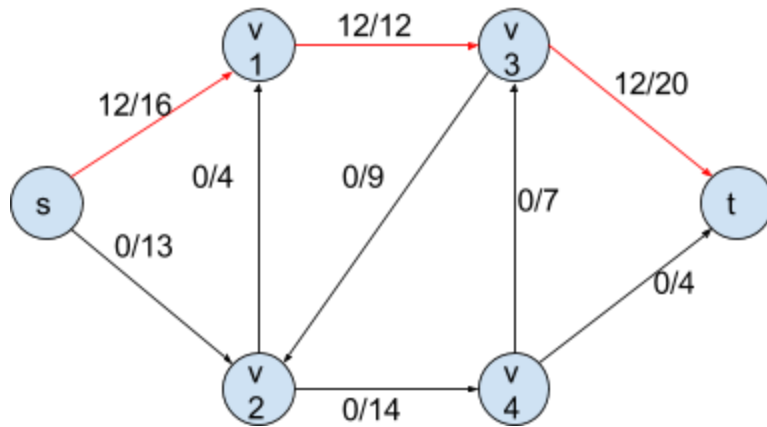
After this, there is no other paths that can reach from s to t. Therefore, the maximum flow is 12 + 11 = 23