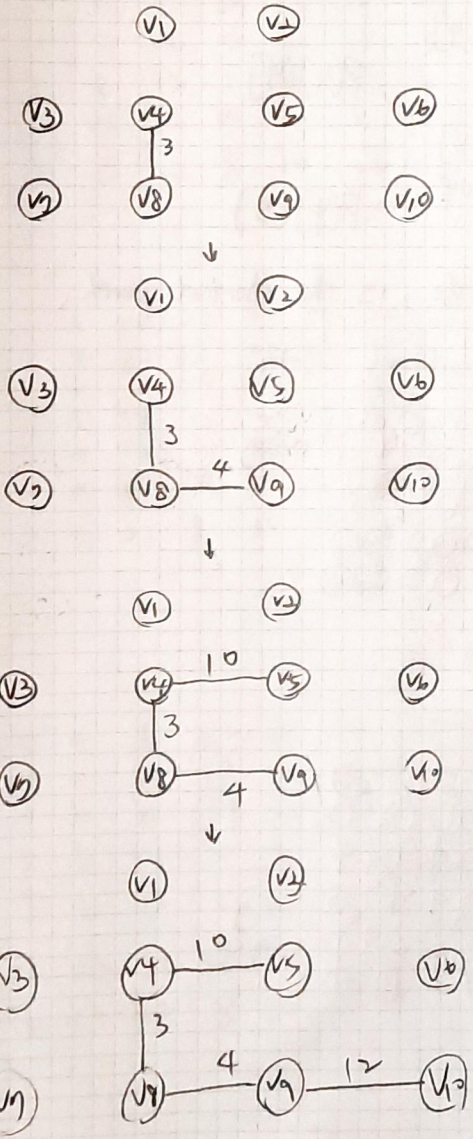
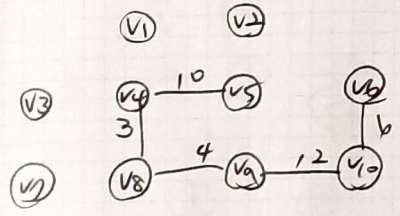
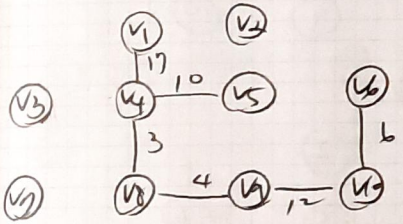
4-2.

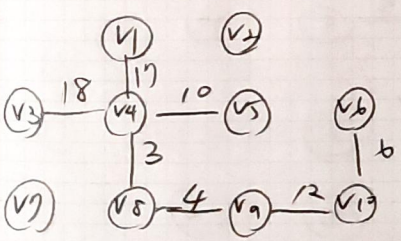
Choose a vertex to start : v_4

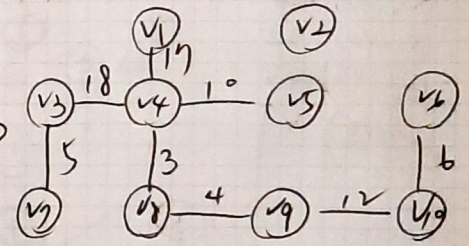


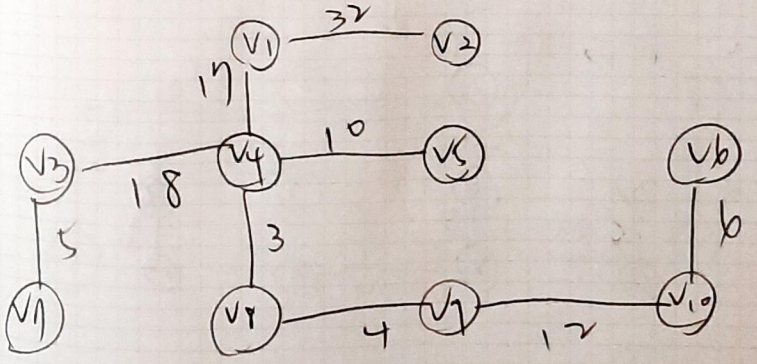
(continue...)









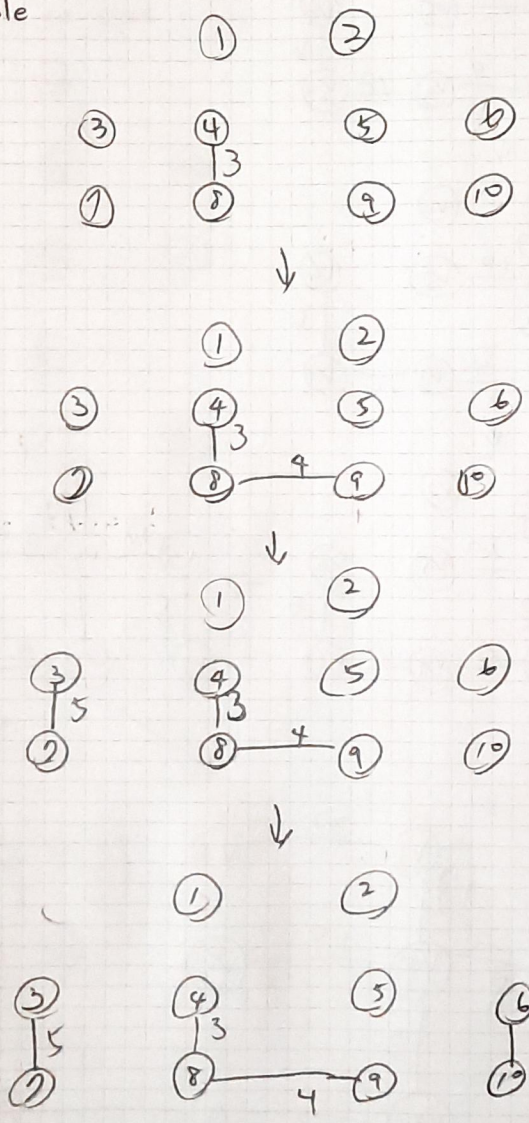


#

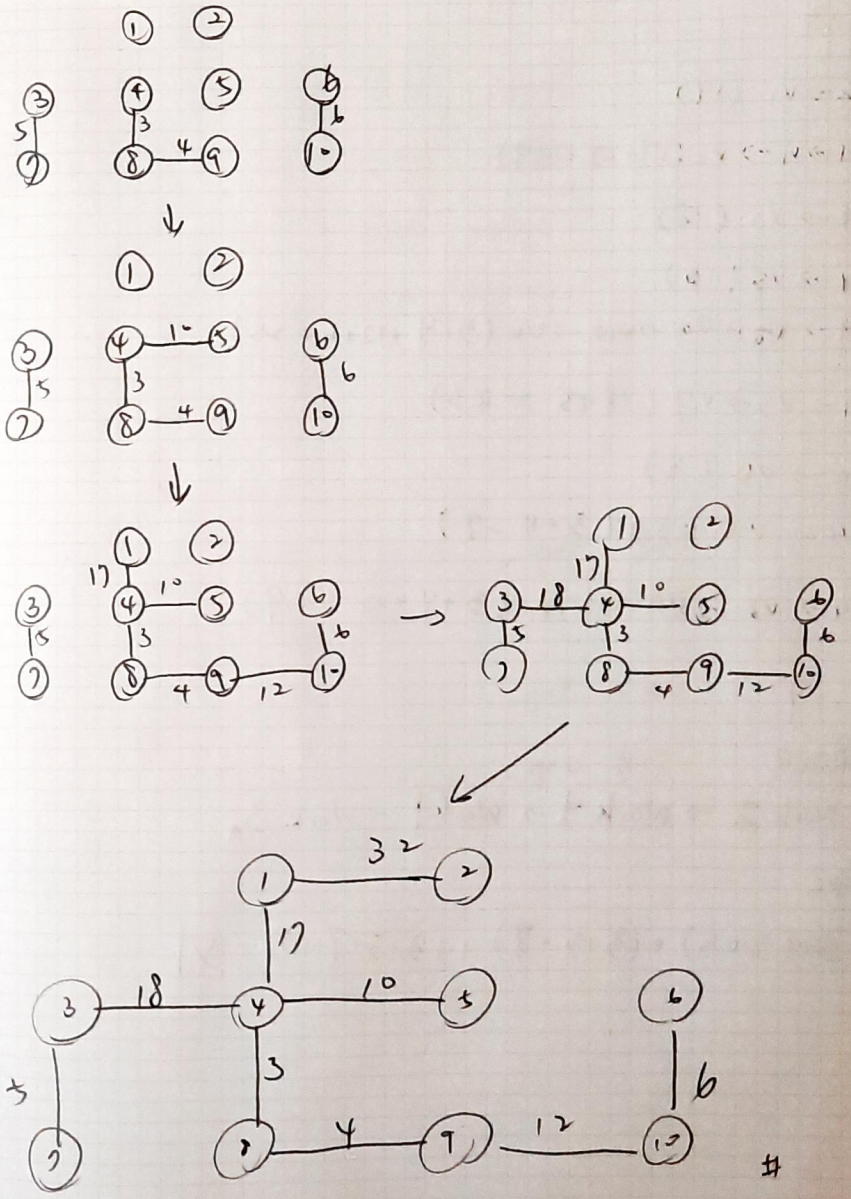
4-7.

Kruskal table

(V4, V8) 3
(V8, V9) 4
(V3, V7) 5
(V6, V10) 6
(V4, V5) 10
(V9, V10) 12
(V1, V4) 17
(V3, V4) 18
(V5, V9) 25
(V5, V6) 28
(V1, V2) 32
(V2, V5) 45
(V7, V8) 59



continue...



4-13

$V_4 \to V_1$ (17)

$V_4 \to V_1 \to V_2$ (17+32 = 49)

$V_4 \to V_3$ (18)

$V_4 \to V_5$ (10)

$V_4 \to V_8 \to V_9 \to V_{10} \to V_6$ (3+4+12+6 = 25)

$V_4 \to V_3 \to V_7$ (18+5 = 23)

$V_4 \to V_8$ (3)

$V_4 \to V_8 \to V_9$ (3+4 = 7)

$V_4 \to V_8 \to V_9 \to V_{10}$ (3+4+12 = 19)

4-19.

ORDER

→ Work 2 → Work 4 → Work 1 → Work 3*

Time

= 3+(3+5)+(3+5+7)+(3+5+7+10) = 51

4-22 (sort by time)

1. Do work 7, get $55 (t=1)
2. Do work 1, get $40 (t=2)
3. Do work 3, get $60 (t=3)
4. Do work 2, get $15 (t=4)

total: 170 $#

(sort by profit)

1. Do work 3 at t=3, get $60.
2. Do work 7 at t=1, get $55
3. Do work 4 at t=2, get $40.
4. Do work 2 at t=4, get $15

total: 170 $#