

选择题

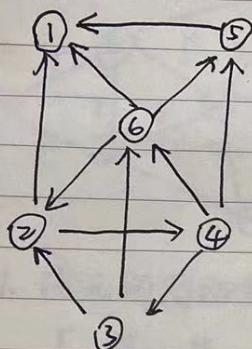
1-5 CBBBC

6-10 BABAA

11-15 DCC(DD)B

应用题

1)



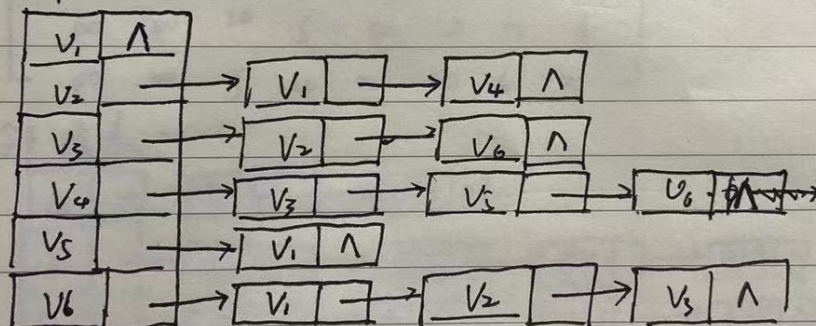
1, 由图知顶点 1, 2, 3, 4, 5, 6 的入度
分别为 3, 2, 1, 1, 2, 2

顶点 1, 2, 3, 4, 5, 6 的出度分别
为 0, 2, 2, 3, 1, 3

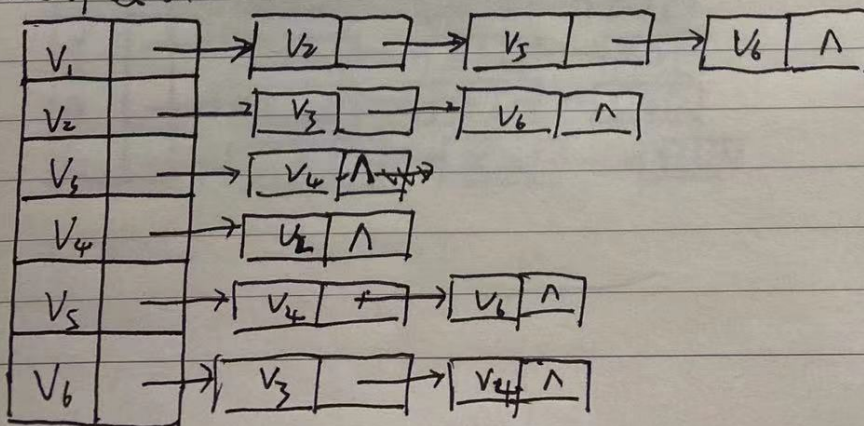
2, 由 1, 知其邻接矩阵为 A 为:

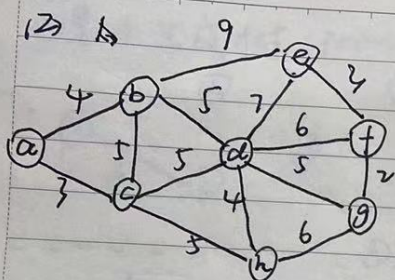
$$A = \begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 1 & 0 & 0 & 1 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 & 1 \\ 0 & 0 & 1 & 0 & 1 & 1 \\ 1 & 0 & 0 & 0 & 0 & 0 \\ 1 & 1 & 1 & 0 & 0 & 0 \end{bmatrix}$$

3, 邻接表如下:



4. 逆邻接表:

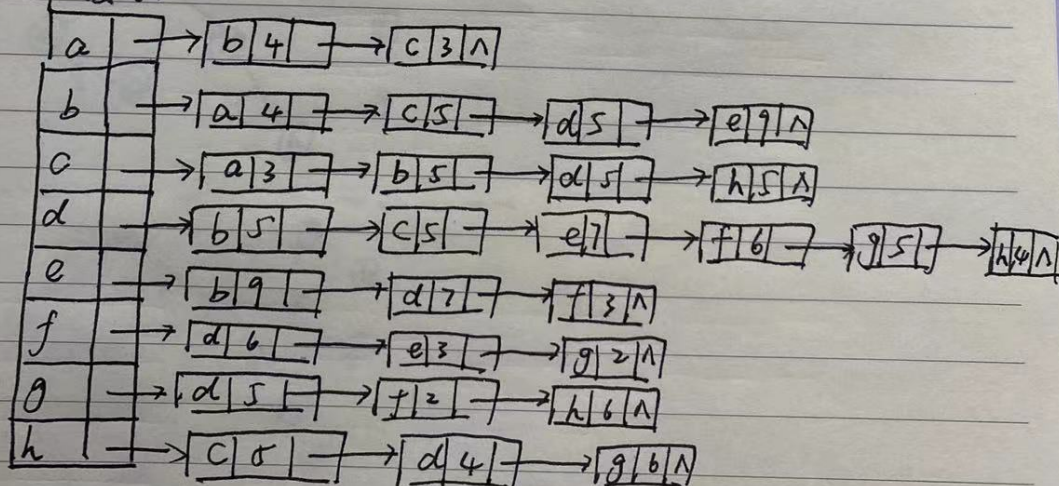




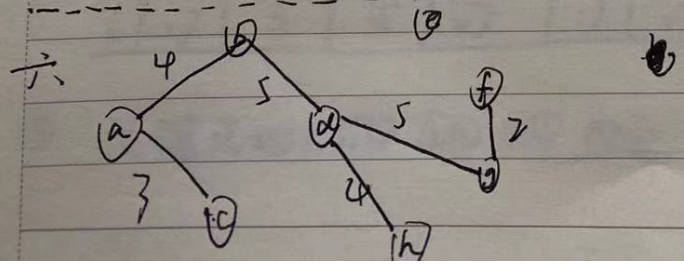
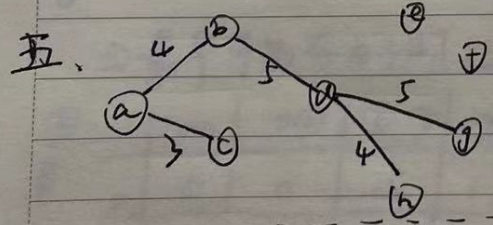
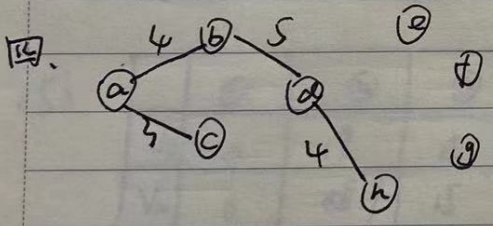
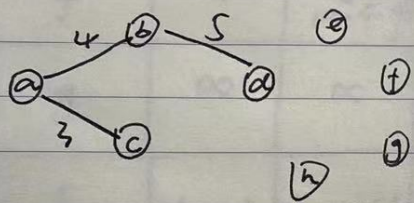
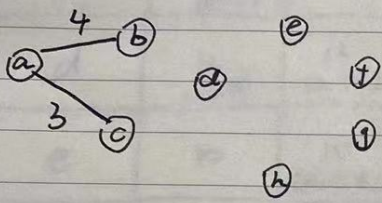
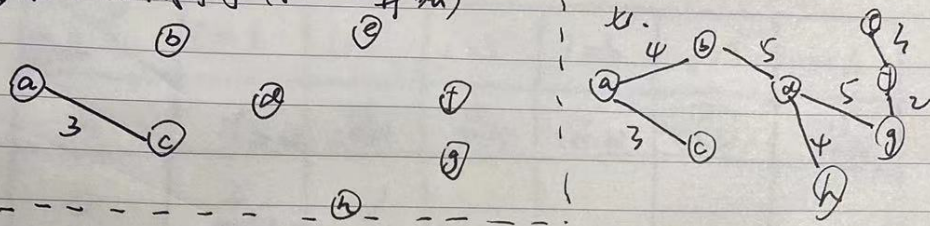
1. 该无向图的邻接矩阵为A:

$$A = \begin{bmatrix} \infty & 4 & 3 & \infty & \infty & \infty & \infty & \infty \\ 4 & \infty & 5 & 5 & 9 & \infty & \infty & \infty \\ 3 & 5 & \infty & 5 & \infty & \infty & \infty & 5 \\ \infty & 5 & 5 & \infty & 7 & 6 & 5 & 4 \\ \infty & 9 & \infty & 7 & \infty & 3 & \infty & \infty \\ \infty & \infty & \infty & 6 & 3 & \infty & 2 & \infty \\ \infty & \infty & \infty & 5 & \infty & 2 & \infty & 6 \\ \infty & \infty & 5 & 4 & \infty & \infty & 6 & \infty \end{bmatrix}$$

2. 邻接表:



3. 最小生成树 (Prime 算法)



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源点 \ 汇点	i=1	i=2	i=3	i=4	i=5	i=6
b	15 (a,b)	15 (a,b)	15 (a,b)	15 (a,b)	15 (a,b)	15 (a,b)
c	2 (a,c)	/				
d	12 (a,d)	12 (a,d)	11 (a,c,f,d)	11 (a,c,f,d)	/	
e	∞	10 (a,c,e)	10 (a,c,e)	/		
f	∞	6 (a,c,f)	/			
g	∞	∞	16 (a,c,f,g)	16 (a,c,f,g)	14 (a,c,f,g)	/
S 终点集	{a,c}	{a,c,f}	{a,c,f,e}	{a,c,f,e,d}	{a,c,f,e,d,g}	{a,c,f,e,d,g,b}

5)

	①	②	③	④	⑤	⑥
V_e	0	17	15	29	38	43
V_b	0	17	15	27	38	43

①

⇒ 最早可能在43时结束。

②

	①②	①③	③②	②④	④⑤	③⑤	④⑥	⑤⑥
e	0	0	15	17	19	15	29	38
b	17	0	15	27	19	27	37	38

③ 关键活动为 ①② ③④ ④⑤ ⑤⑥

算法设计题

```
void DFS(Graphic *G, int v){
    memset(visited,0,sizeof(visited));
    Stack s;
    InitStack(s);
    push(s, v);
    while (!s.IsEmpty()){
        pop(s, k);
        if (!visited[k]){
            visited[k] = 1;
            for (tmp = FirstAdjVex(G, k); tmp; tmp = NextAdjVex(G, k, tmp)){
                if (!visited[tmp] && tmp != s.top()) push(s, tmp);
            }
        }
    }
}
```

```
}  
  }  
    }  
      }
```