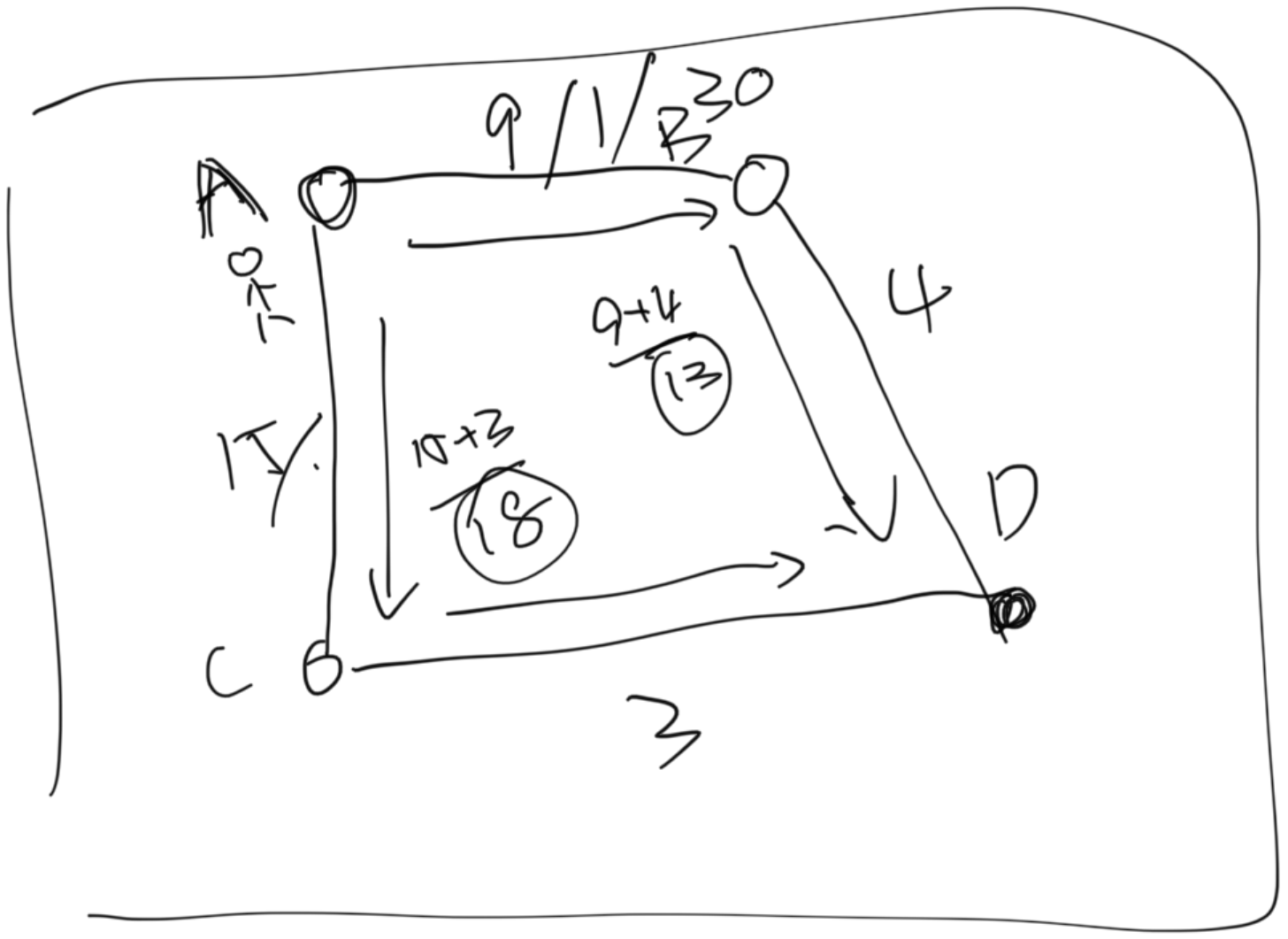


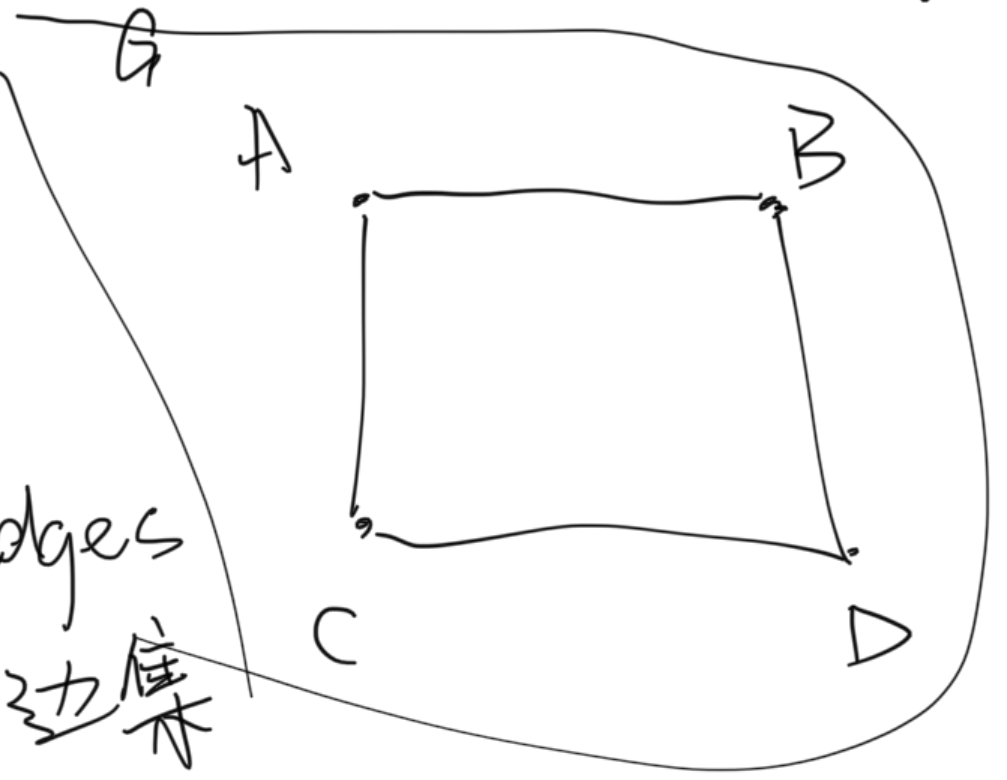
graph

时间

路径

大路口

(红绿灯)

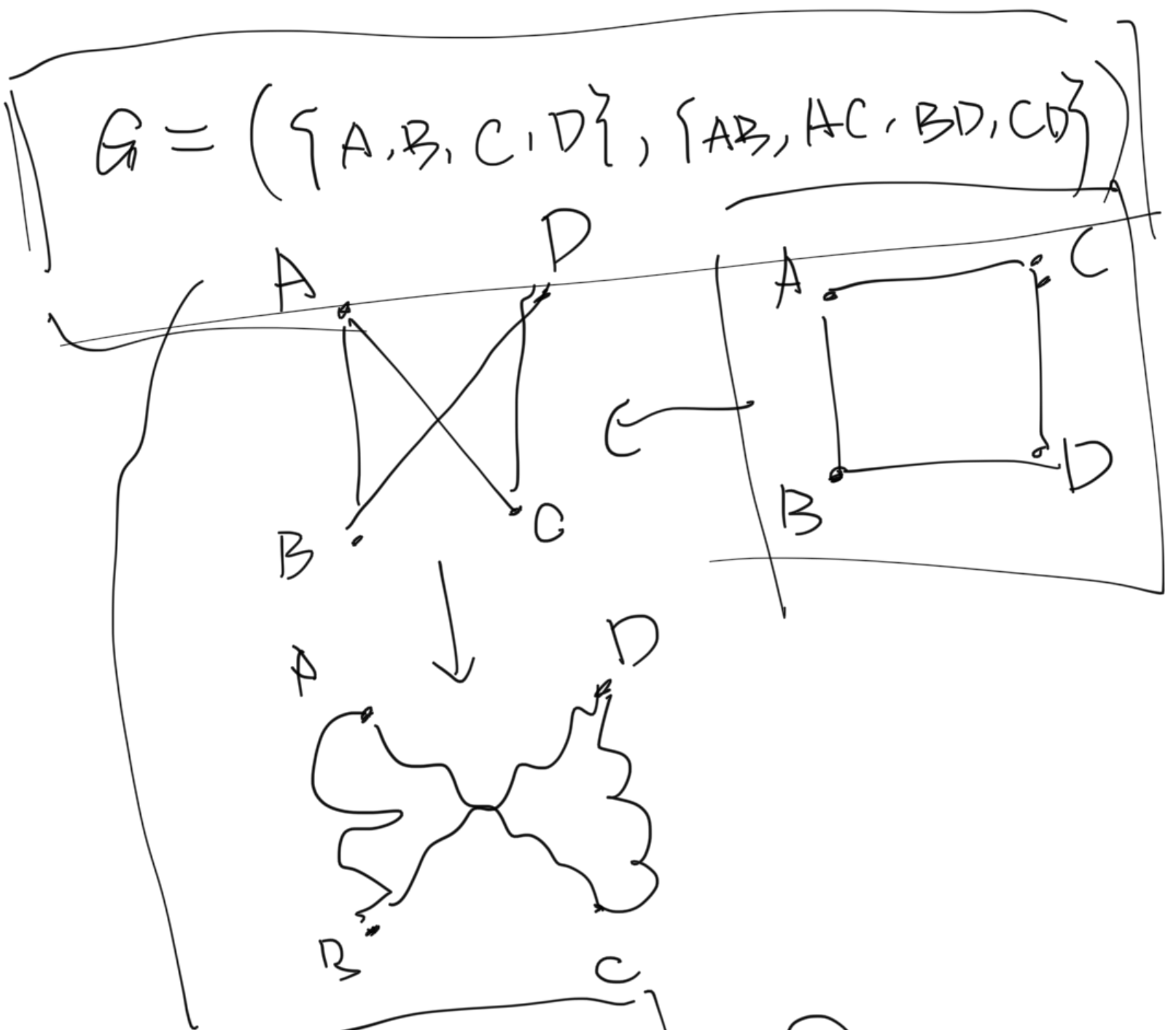


$G = (V, E)$

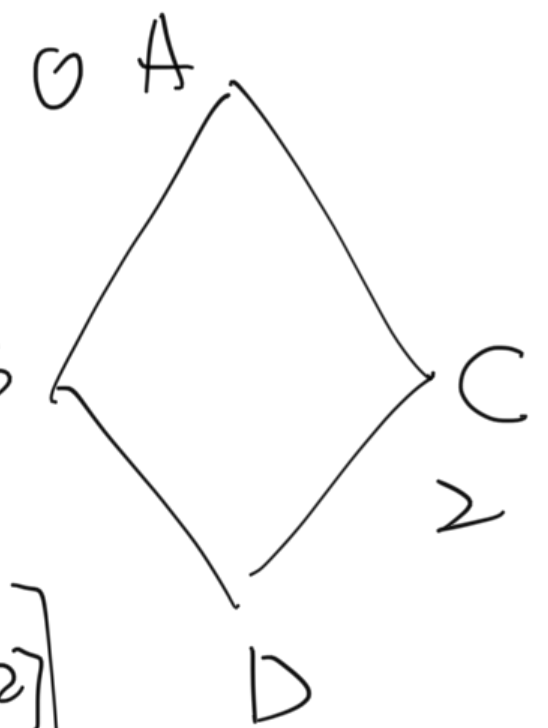
点集 vertex vertices

edges 边集

$G = (\{A, B, C, D\}, \{AB, AC, BD, CD\})$



$$G=(\{1,2,3,4\},\{(1,2),(2,4),(1,3),(3,4)\})$$



① A: B C

② B: A D

③ C: A D

④ D: B C

邻接表

[[1,2],[0,3],[0,3],[1,2]]

```
whereto go = [ ]
whereto go. append ( [1, 2] )
whereto go. append ( [0, 3] )
```

```
dict = { }
dict['A'] = ['B', 'C']
dict['B'] = ['A', 'D']
dict['C'] = ['A', 'D']
dict['D'] = ['B', 'C']
```

dict = {}

```
ls = input().split()
# ls = ['A', 'B']
dict[ls[0]] = [ls[1]]
dict[ls[1]] = [ls[0]]
# dict = {'A':['B'], 'B':['A']}
ls = input().split()
# ls = ['A', 'C']
if ls[0] in dict.keys():
    dict[ls[0]].append(ls[1])
```

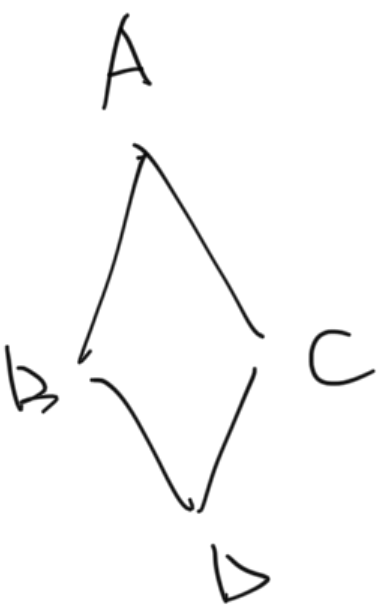
A ⊔ B

A ⊔ C

B ⊔ D

C ⊔ D

	人数	几何	统计
A	95	93	80
B	100	60	70
C	80	90	95

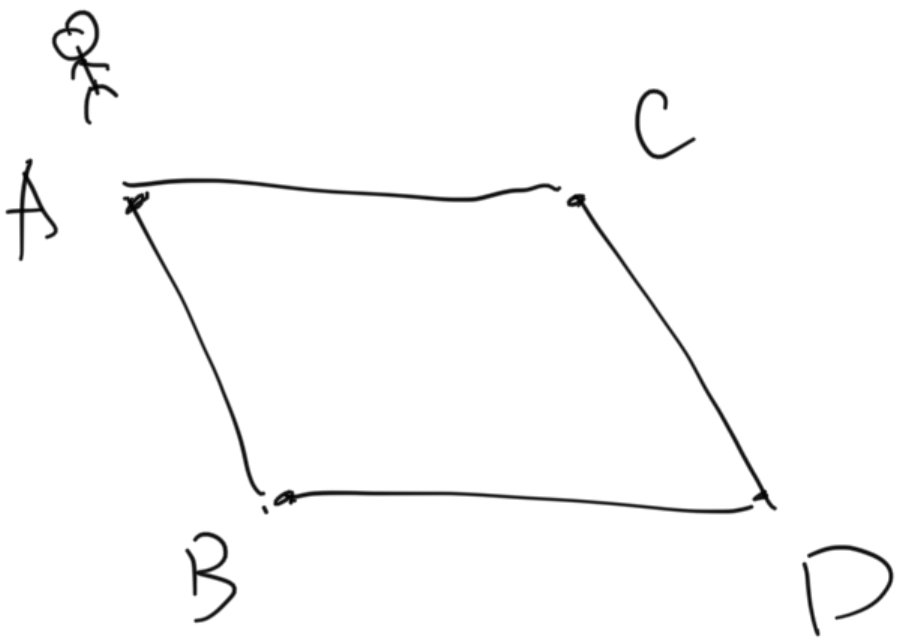


	A	B	C	D
A	X	V	V	X
B	V	X	X	V
C				
D				

邻接矩阵

C ✓ ✗ ✗ ✓

D. ✗ ✓ ✓ ✗



'A': ——

'B': ——

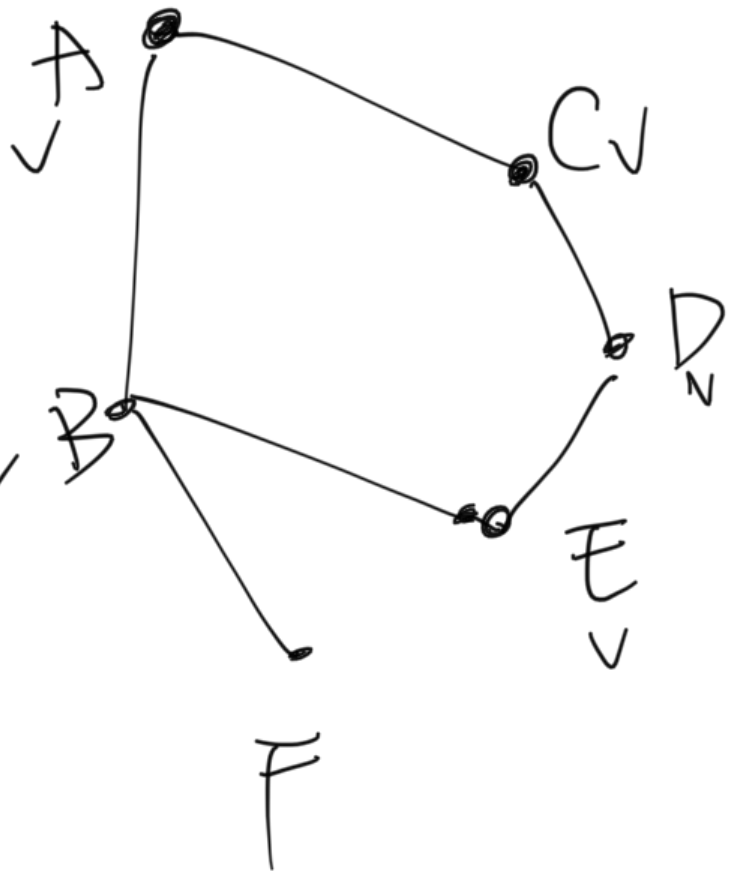
'C': ——

'D': ——

A → C → D → B ✗→ A

A ← C ← D

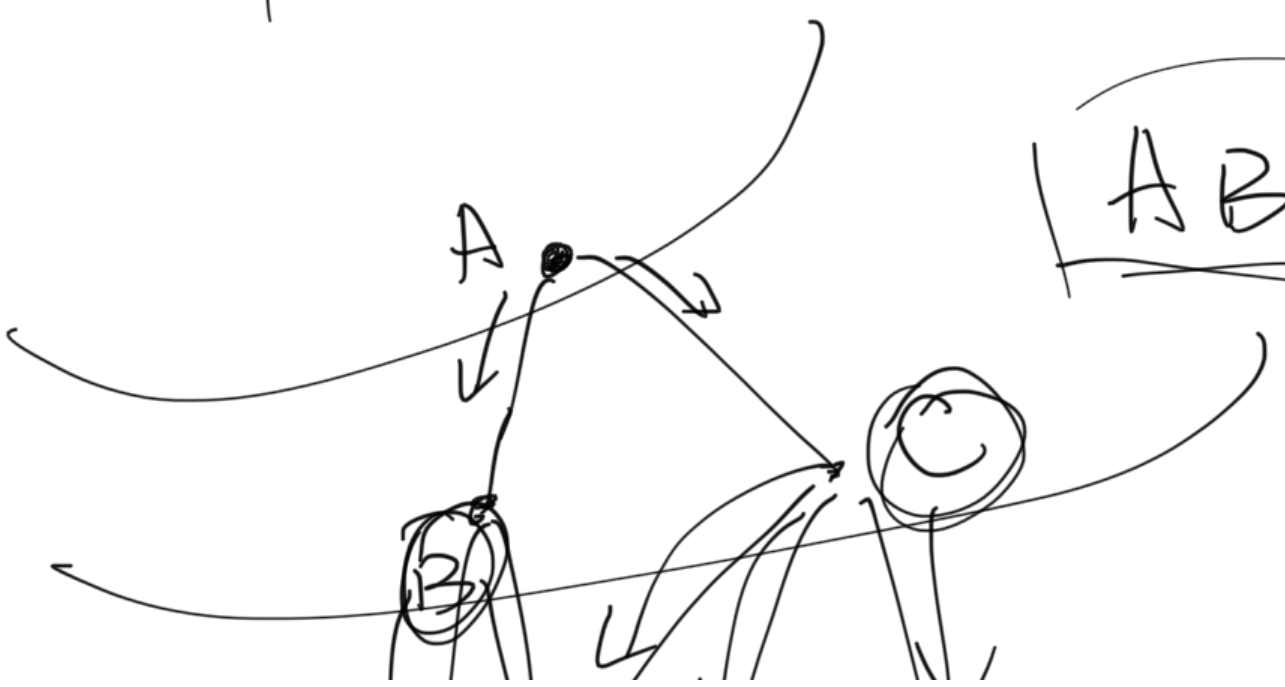
A → BC → FED



A → B → E → D

→ C → D → E → B

→ F



ABCDEFG