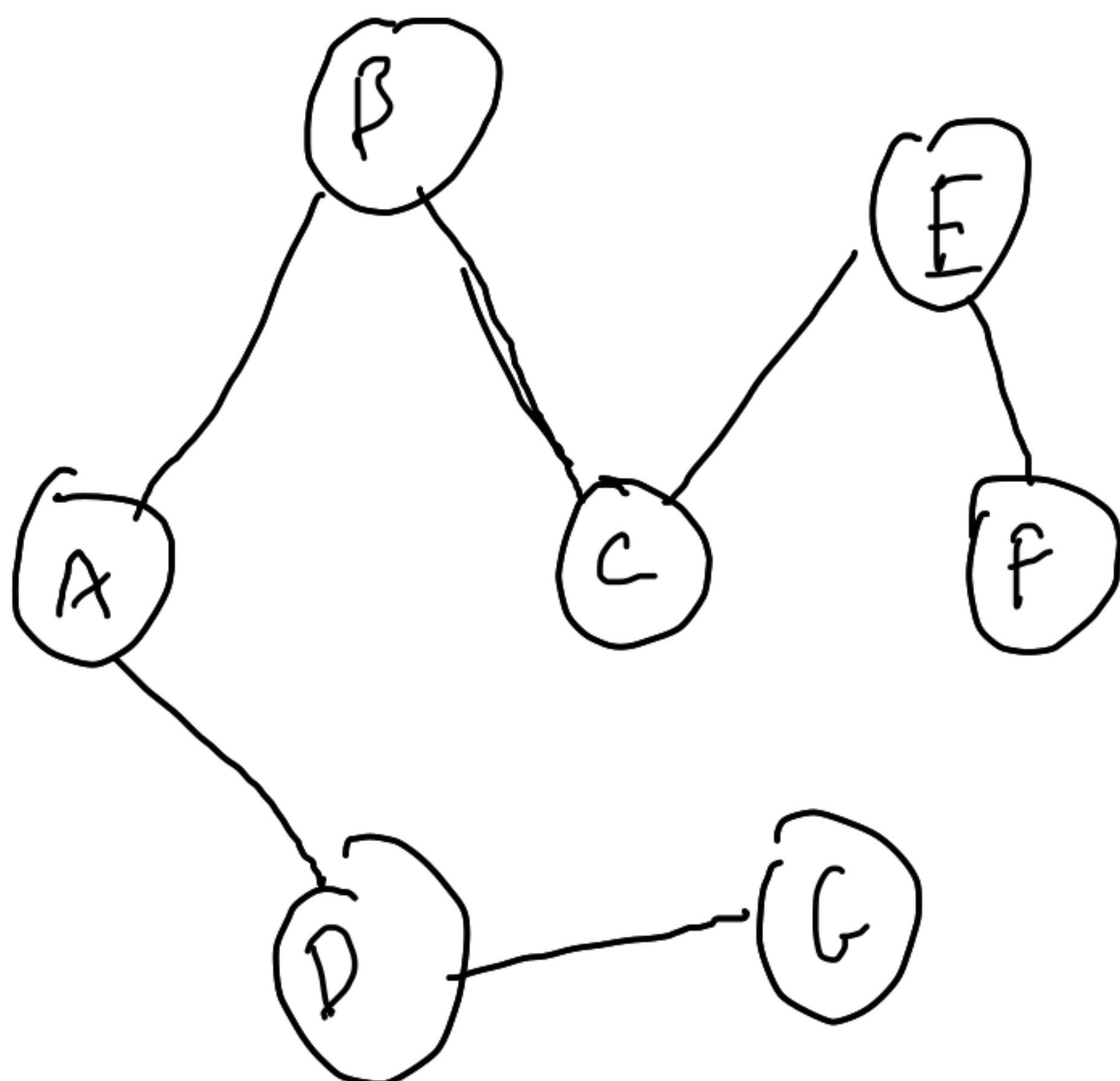
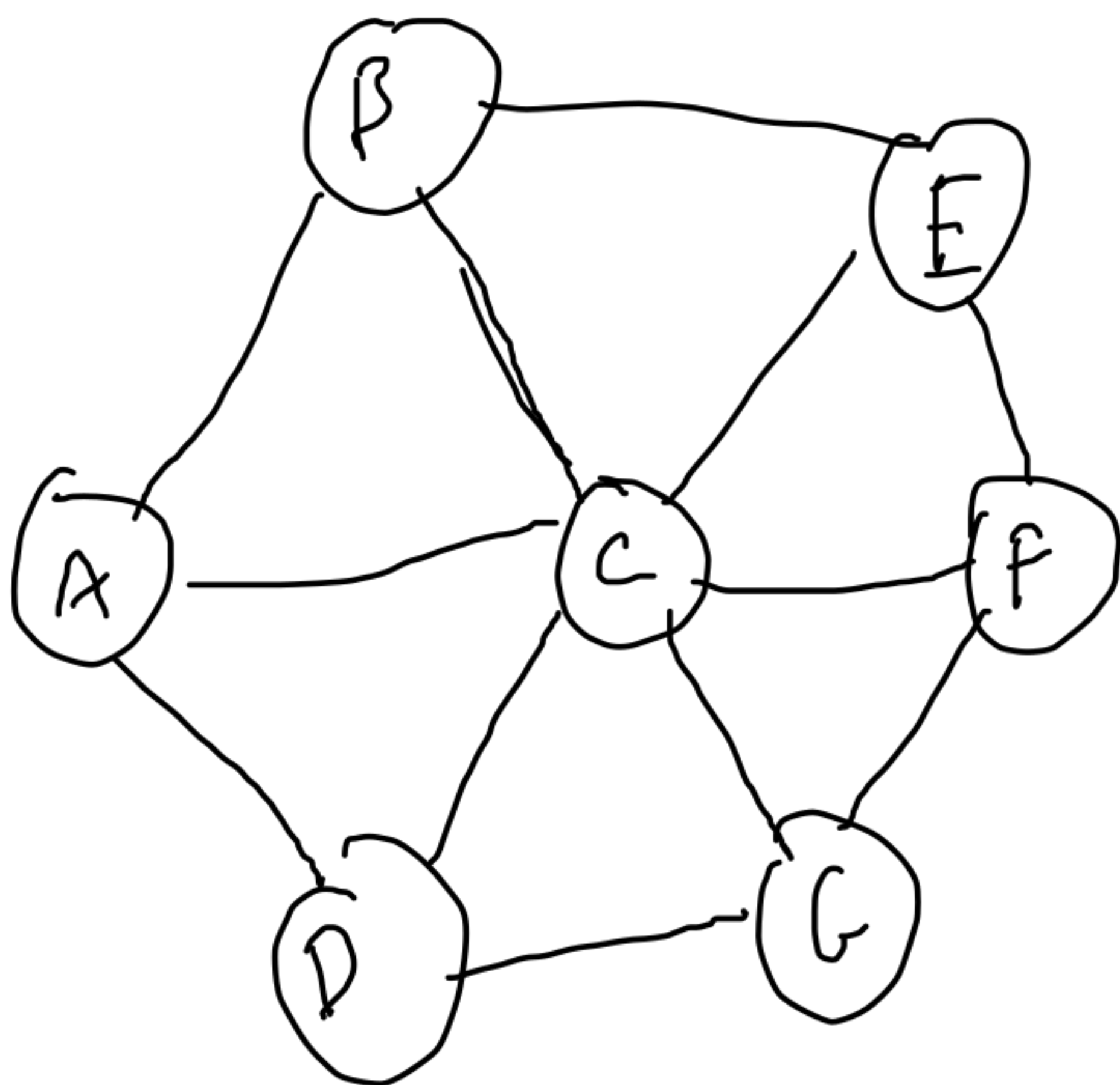
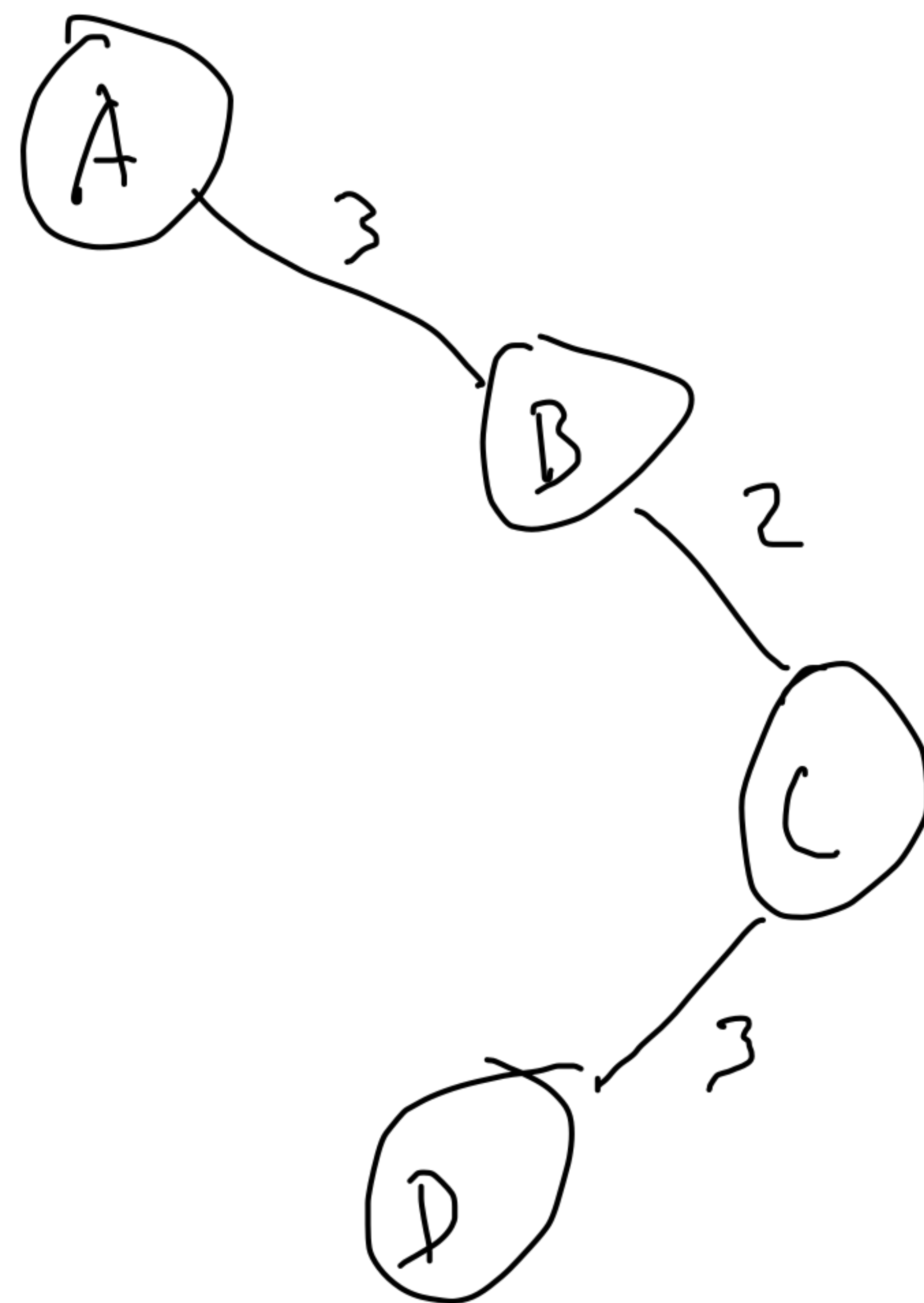
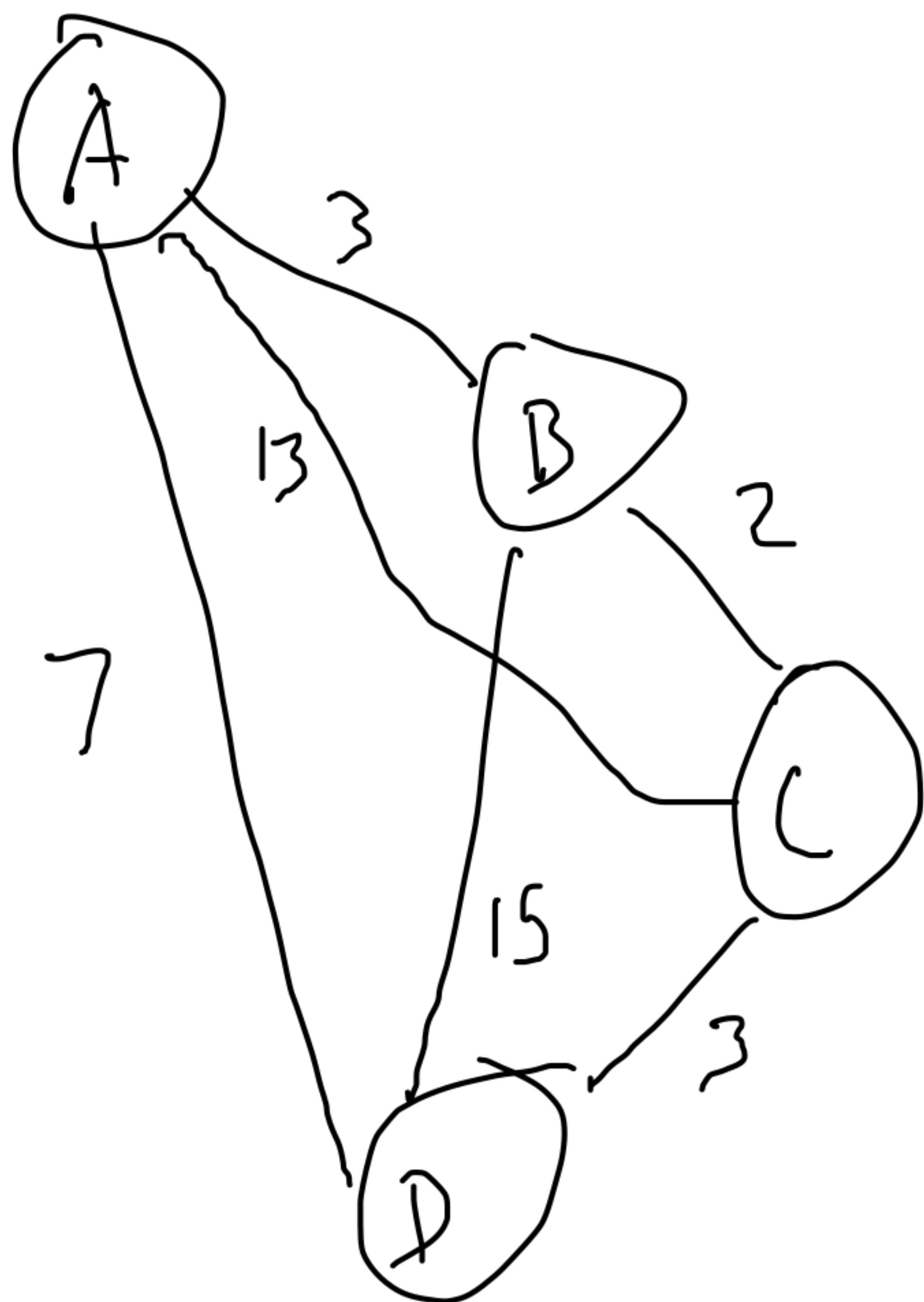


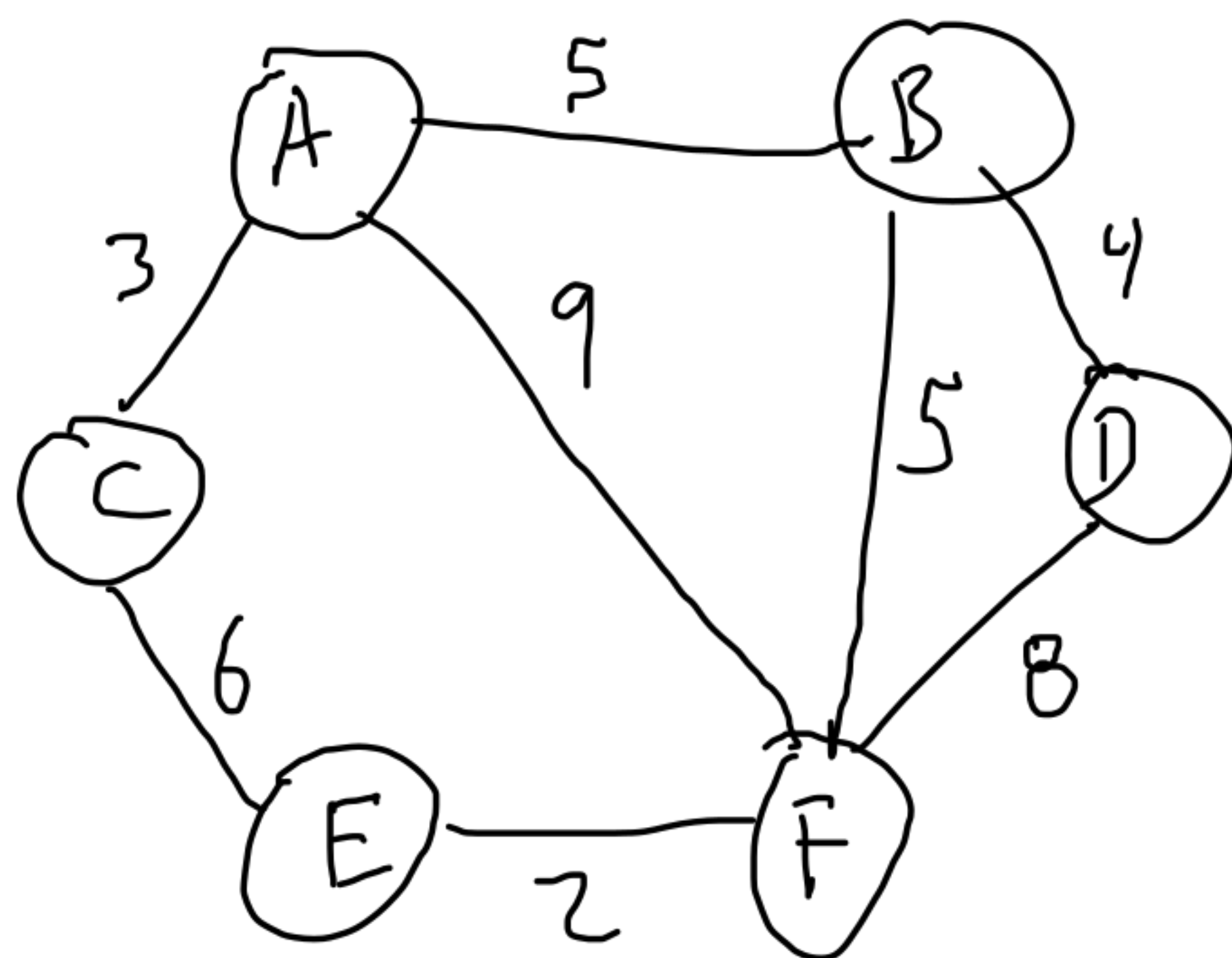
# Spanning Tree



# Minimum Spanning Tree



# Prim's Algorithm



inTree: ✓✓✓✓✓✓  
A B C D E F

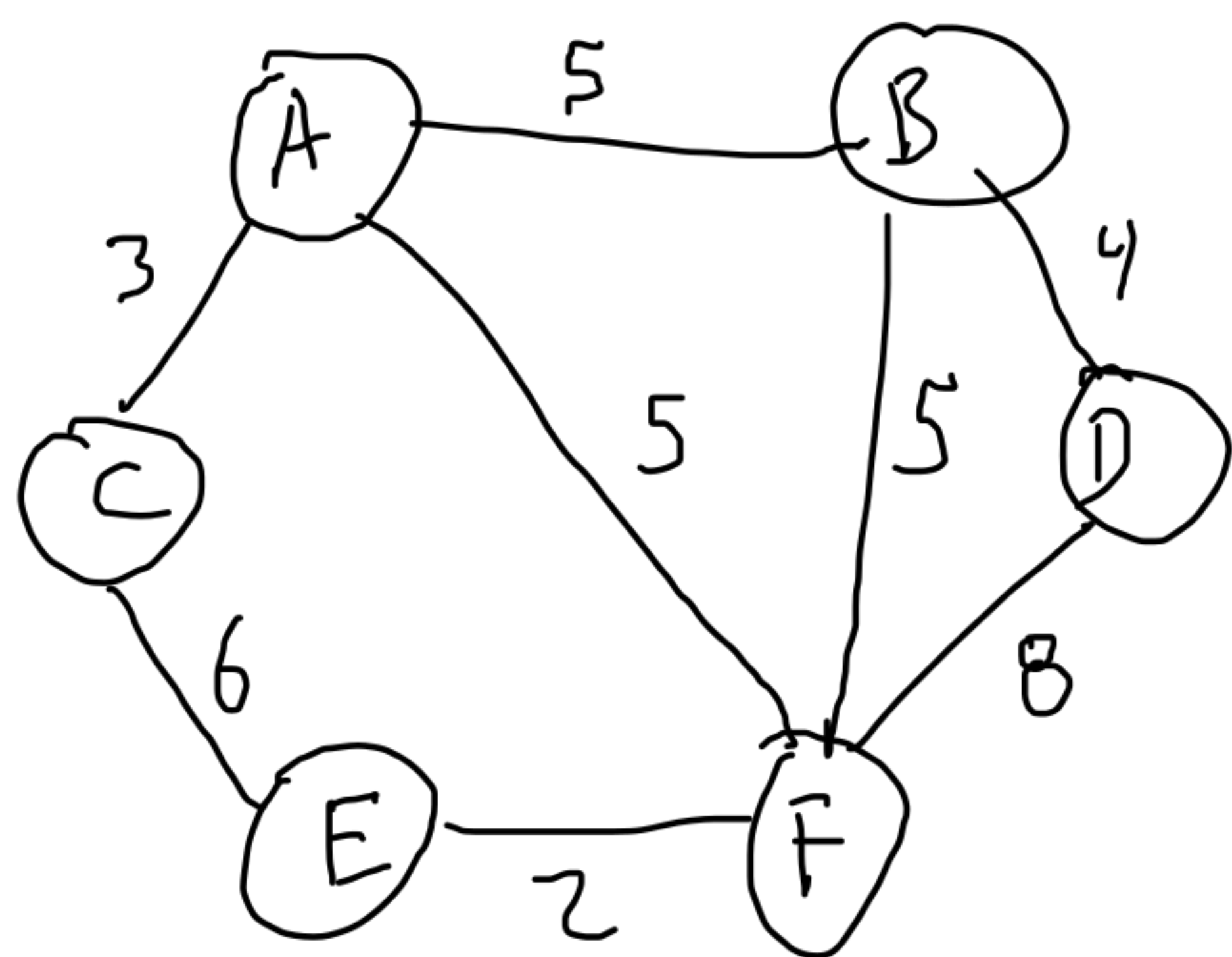
used edges:

- $C \rightarrow A, 3$
- $A \rightarrow B, 5$
- $B \rightarrow D, 4$
- $B \rightarrow F, 5$
- $F \rightarrow E, 2$

queue:

- ~~$C \rightarrow A, 3$~~
- ~~$A \rightarrow B, 5$~~
- ~~$B \rightarrow D, 4$~~
- ~~$B \rightarrow F, 5$~~
- ~~$F \rightarrow E, 2$~~
- $C \rightarrow E, 6$
- $D \rightarrow F, 8$
- $A \rightarrow F, 9$

# Kruskal's Algorithm



tree Num	1	2	3	4	5	6
	1	<del>2</del>	<del>3</del>	<del>4</del>	<del>5</del>	<del>6</del>
	A	B	C	D	E	F

used edges:  $E \rightarrow F, 2$

$A \rightarrow C, 3$

$B \rightarrow D, 4$

$A \rightarrow B, 5$

$A \rightarrow F, 5$

edges:

~~$E \rightarrow F, 2$~~

~~$A \rightarrow C, 3$~~

~~$B \rightarrow D, 4$~~

~~$A \rightarrow B, 5$~~

~~$A \rightarrow F, 5$~~

$B \rightarrow F, 5$

$C \rightarrow E, 6$

$F \rightarrow D, 8$