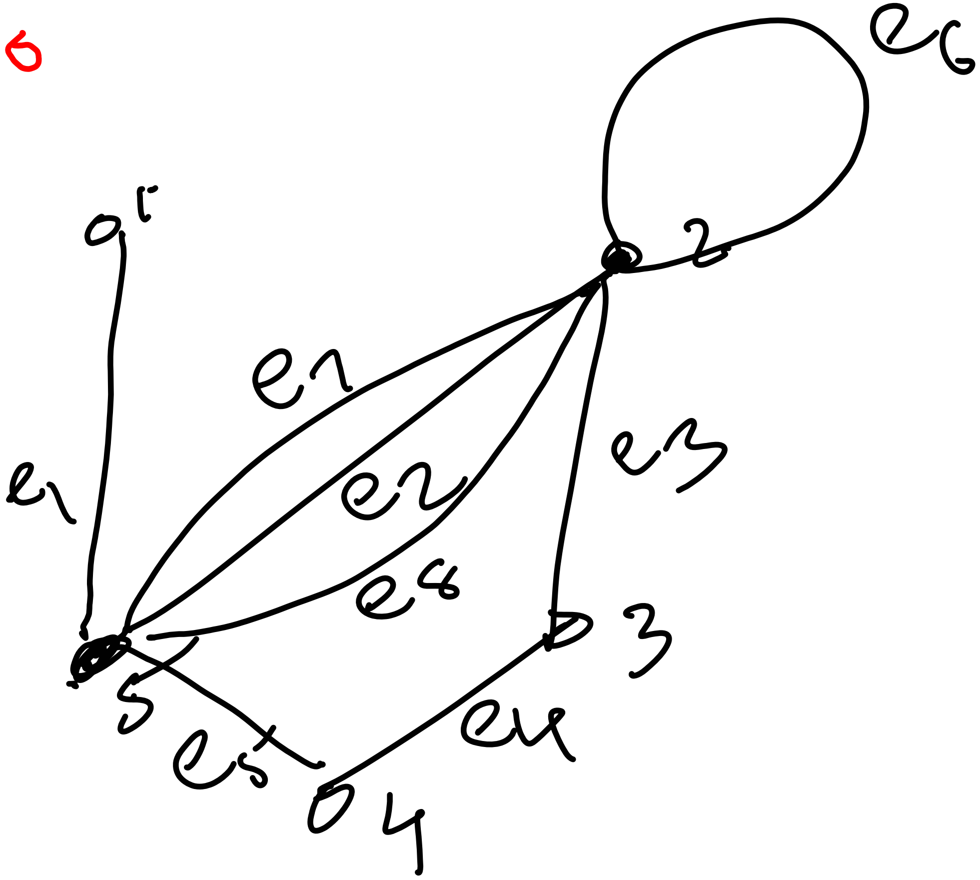
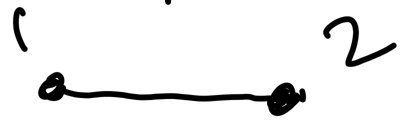
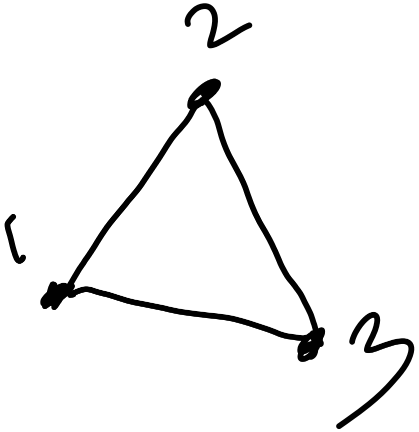
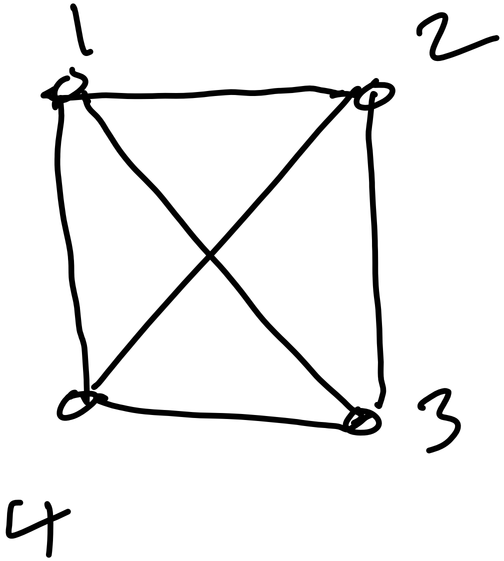
6



K_2



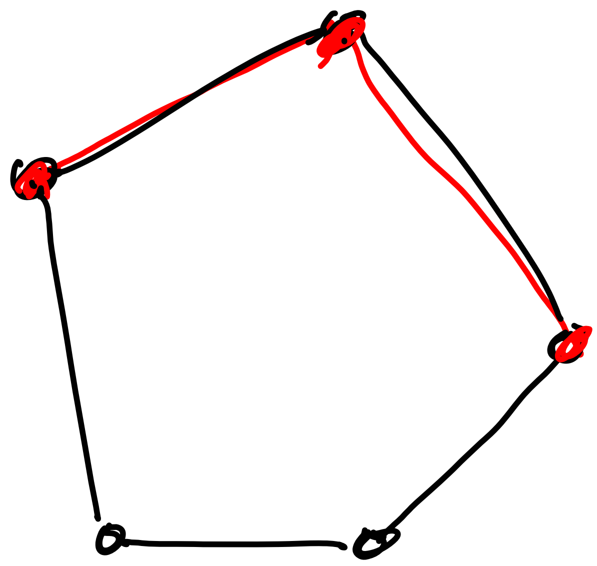




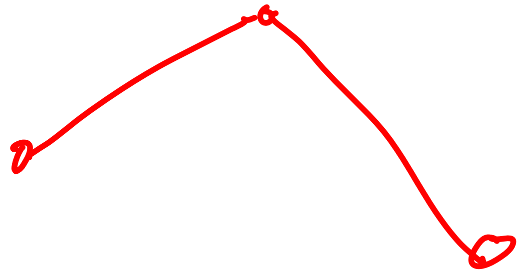
$|V(G)| = n$ then

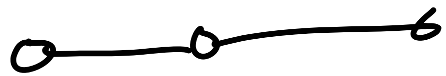
$\binom{n}{2}$ pairs of vertices are possible.

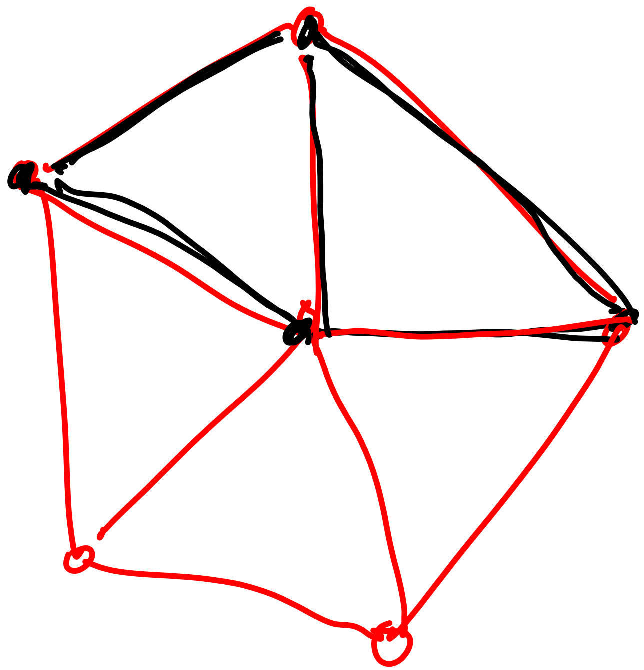
"K_n"

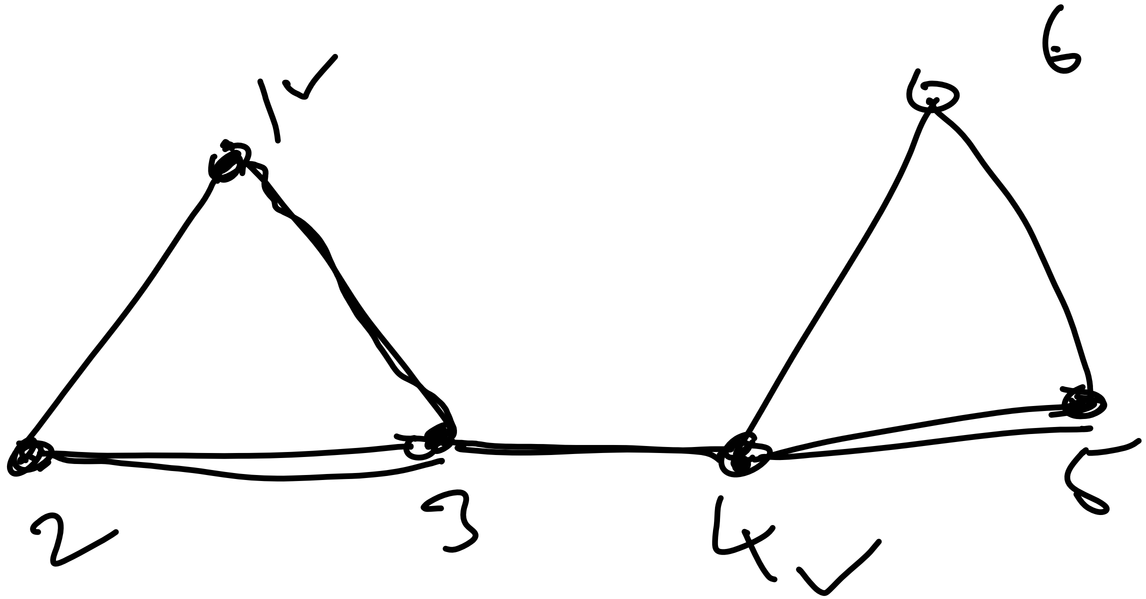


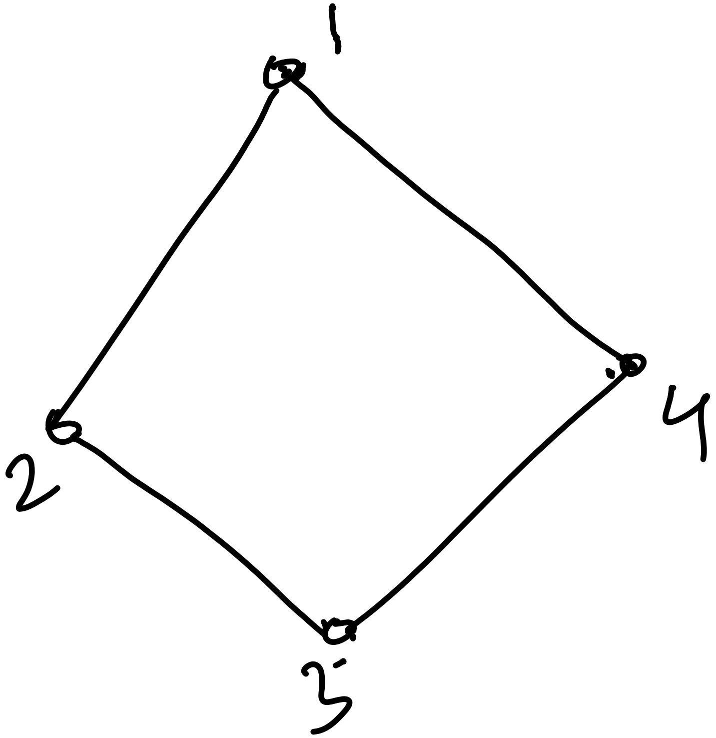
C_n

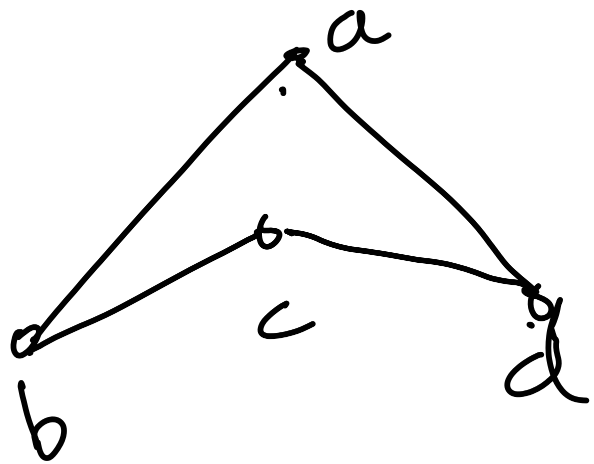







1
2
3
4
5
6





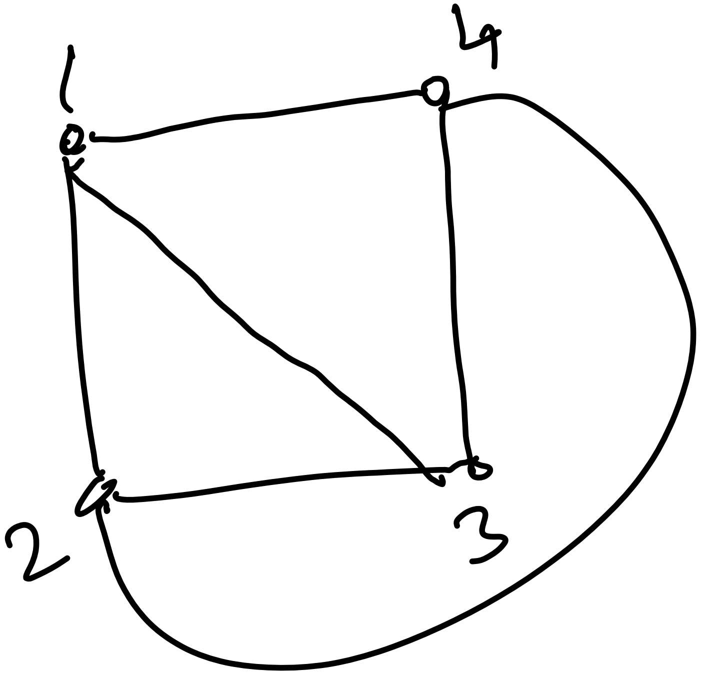
<u>f</u>

1 — a ✓

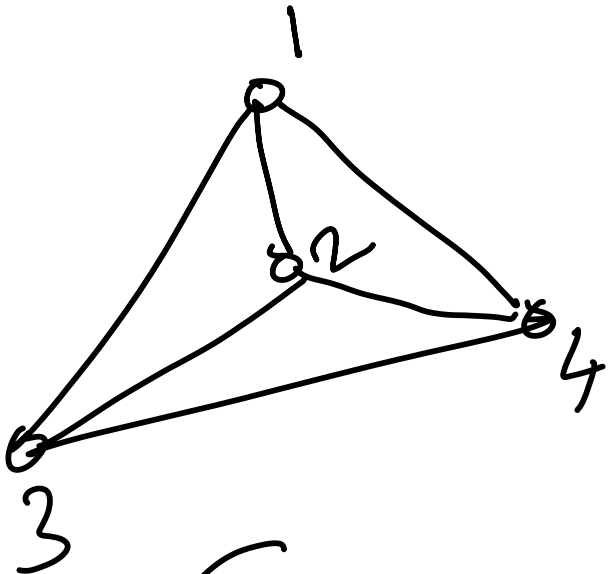
2 — b

3 — c

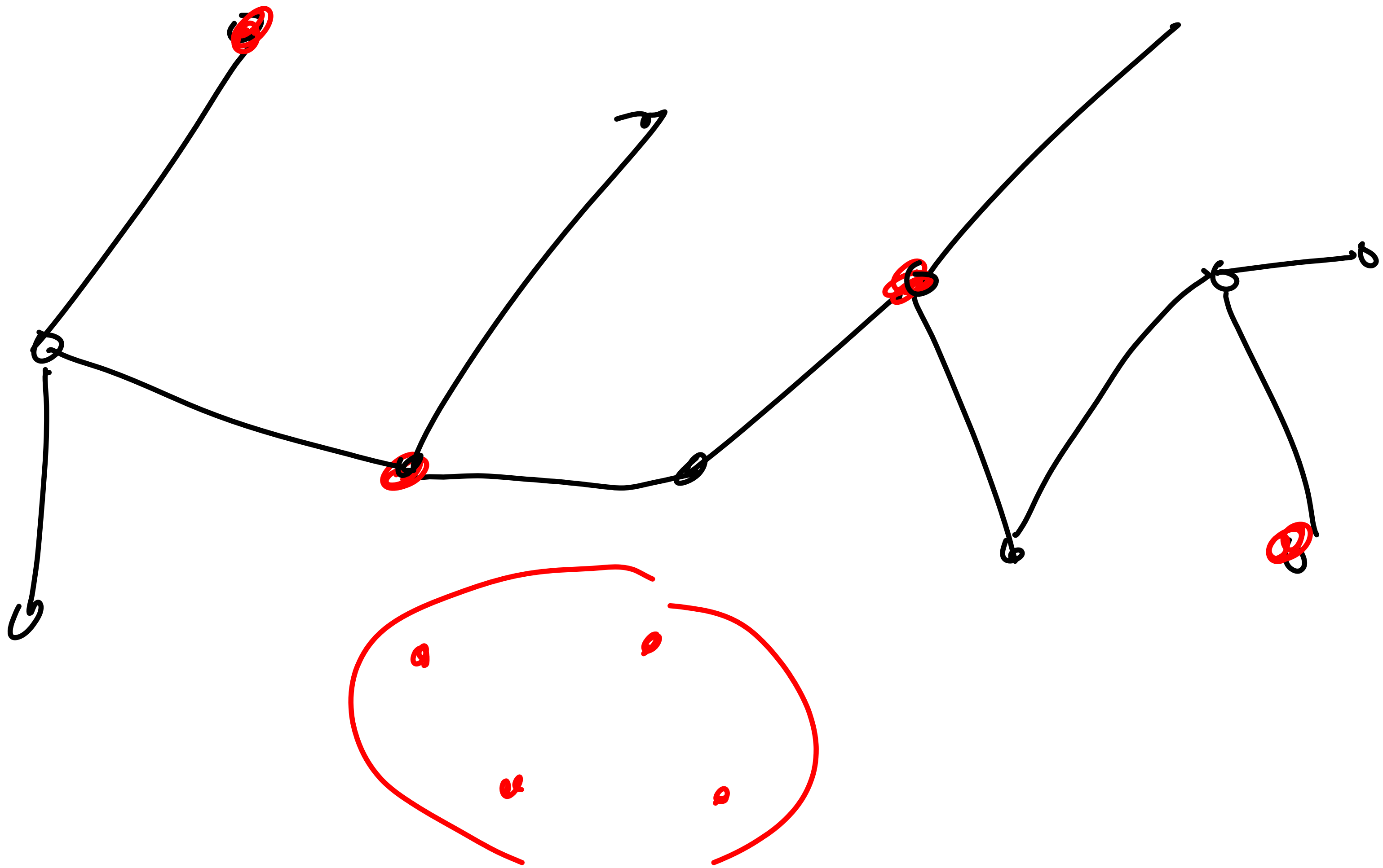
4 — d ✓

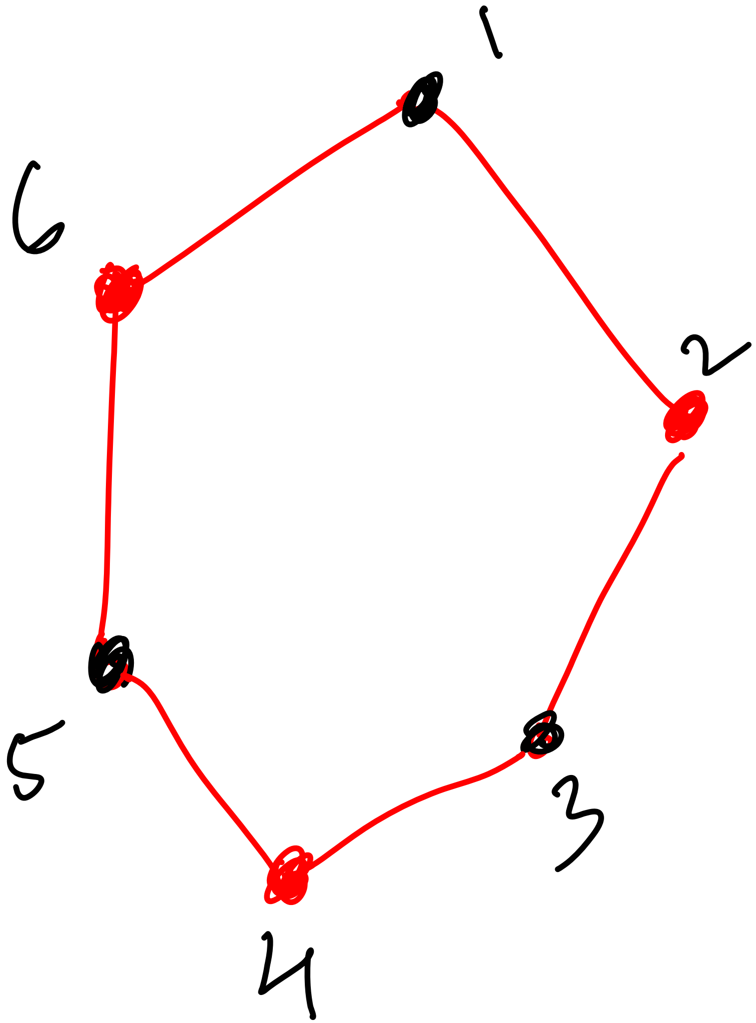


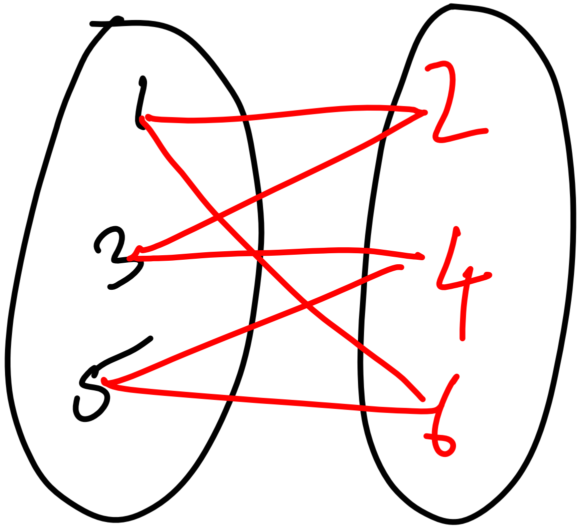
G_1

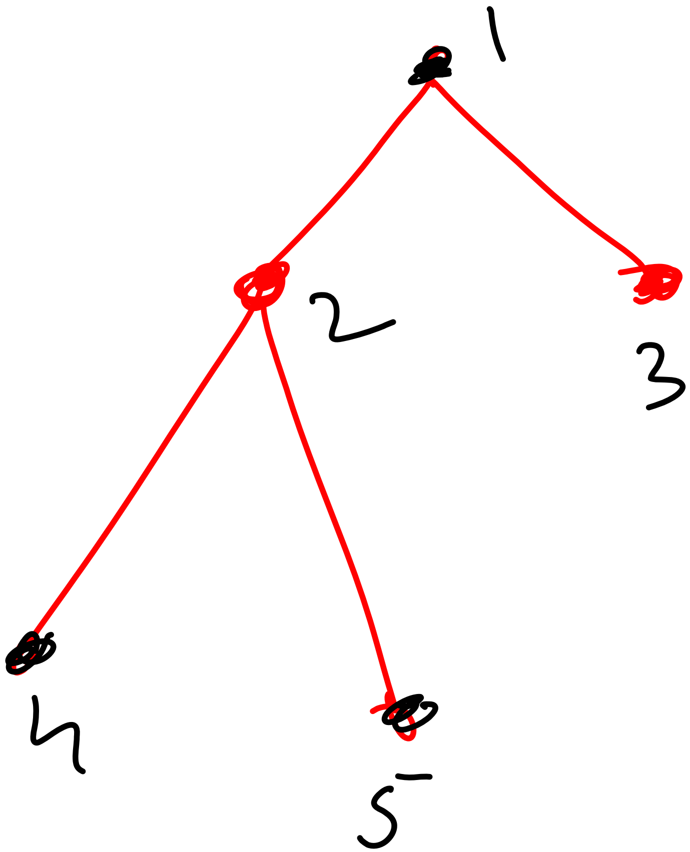


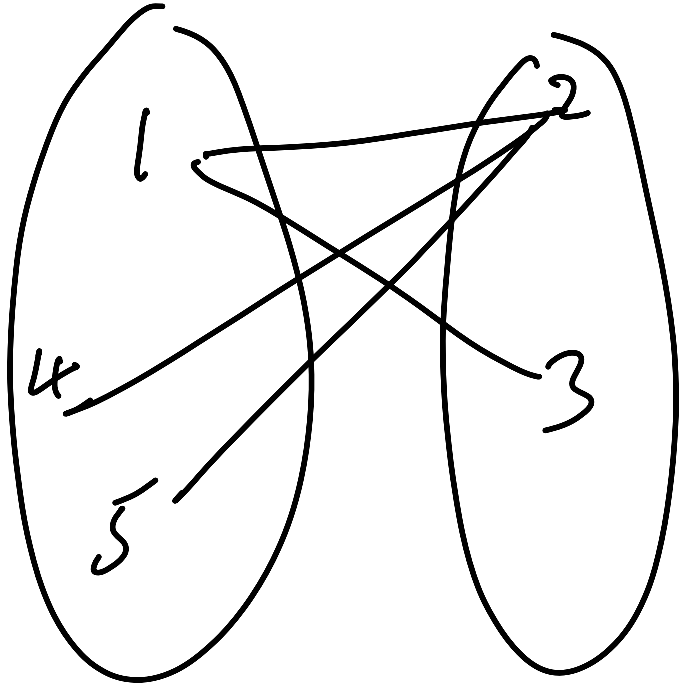
G_2

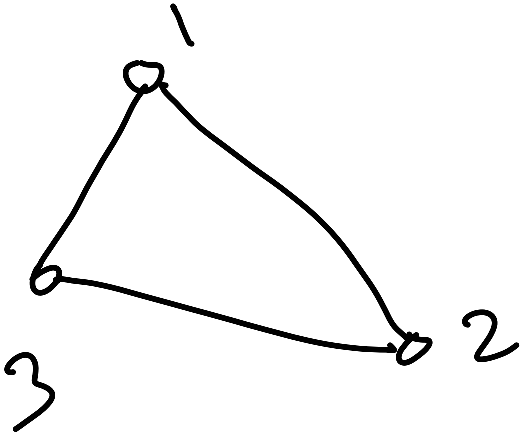



1
2
3
4
5
6

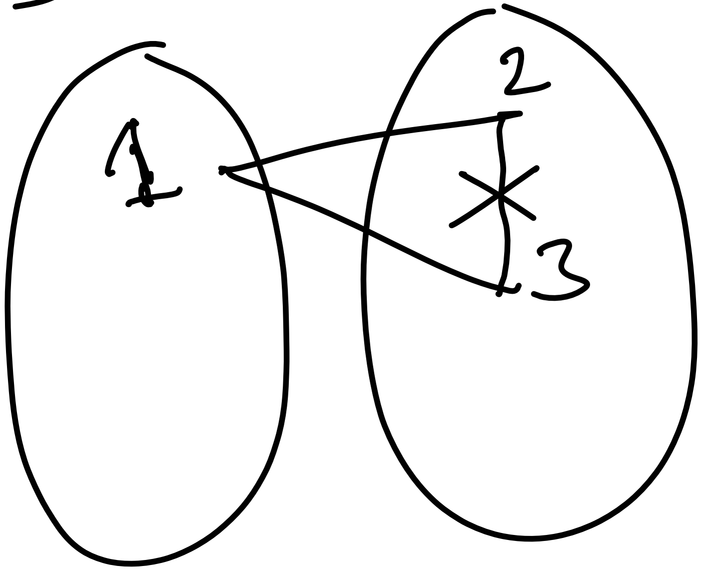

1
3
5
2
4
6

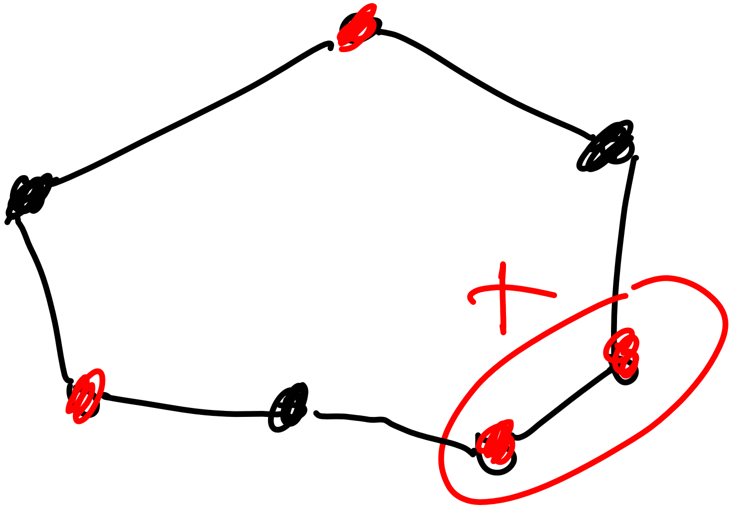

1
2
3
4
5


1
4
5
2
3

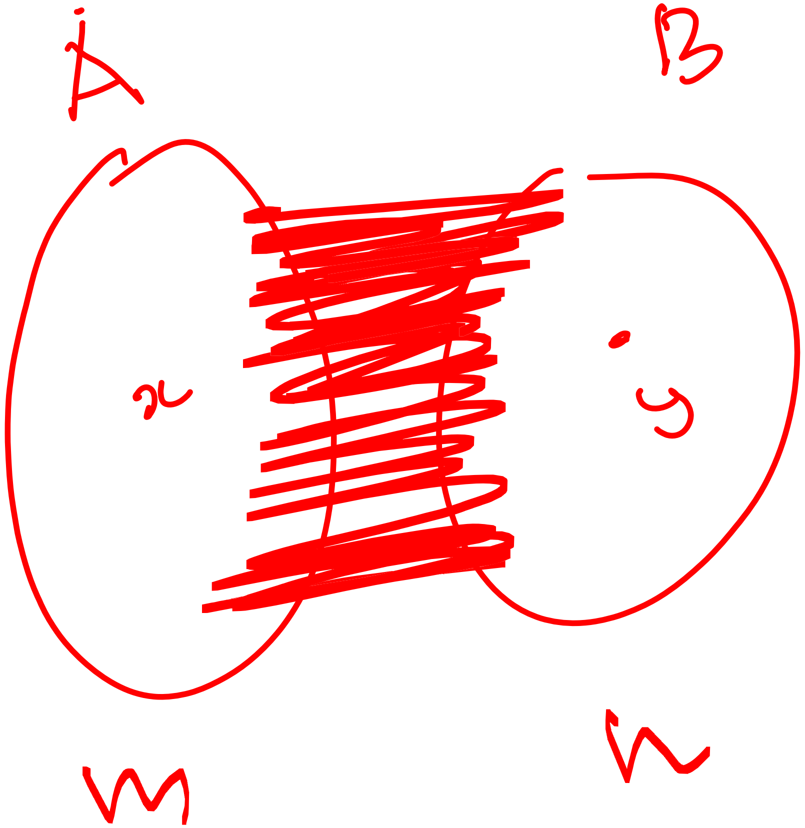


C_3

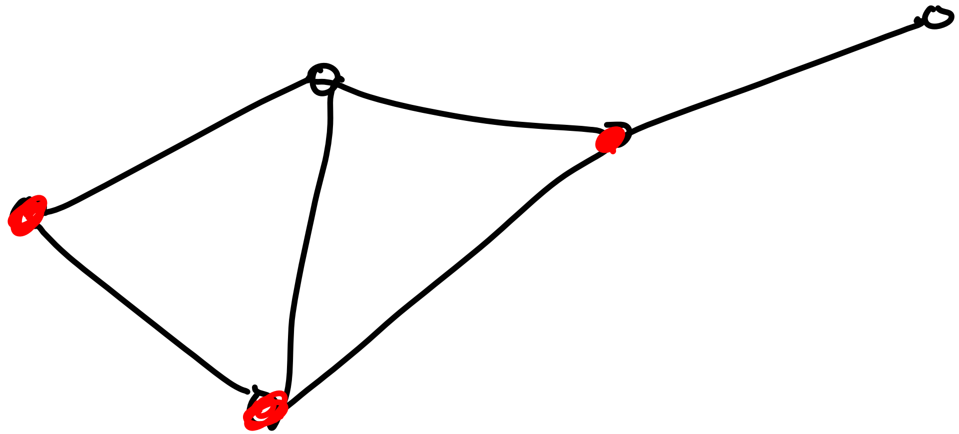


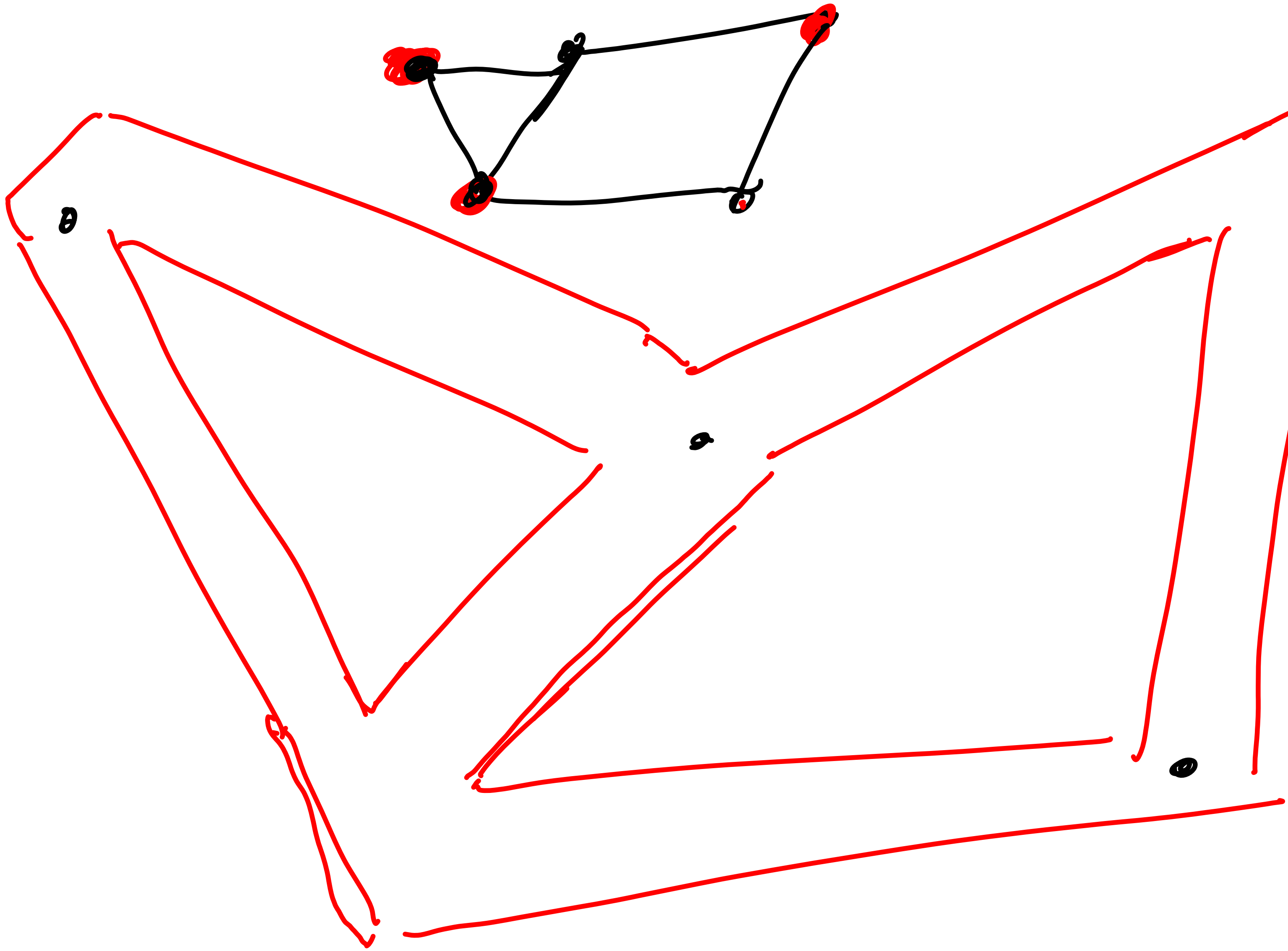


C_7

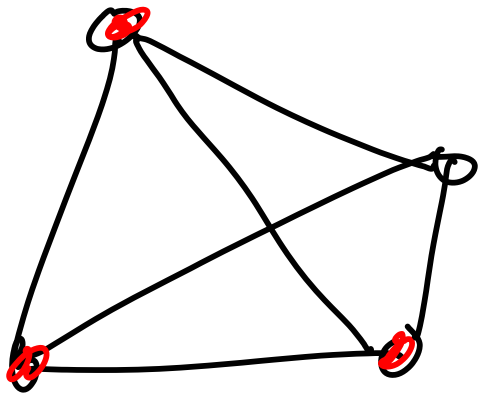


$K_{m,n}$



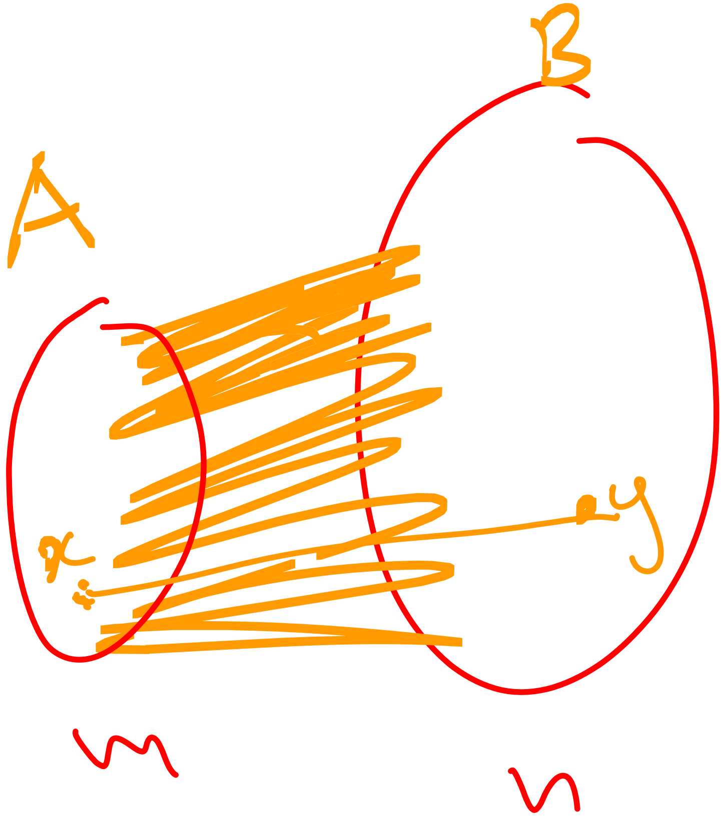


$\underline{\underline{(n-1)}}$ vertices from the n vertices



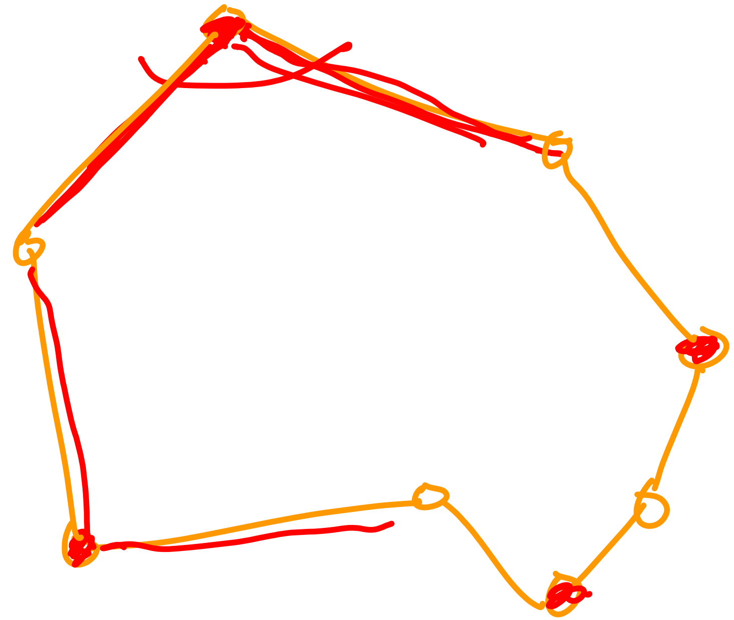
K_4

Suppose there is a VC with $n-2$ vertices



$m \leq n$

A



C_n

n – even

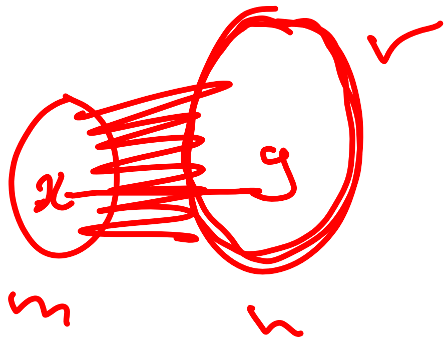
$$\frac{n}{2}$$

$$\left\lceil \frac{n}{2} \right\rceil$$

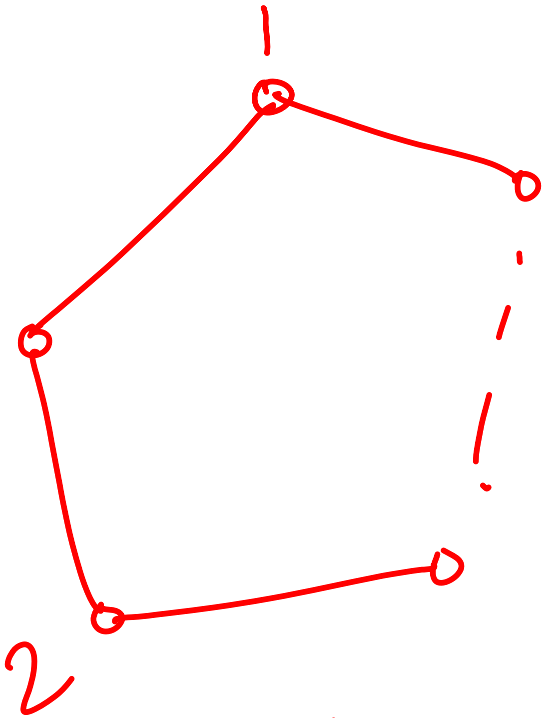
$$\left(\frac{n}{2}-1\right)\times 2 = n-2 \text{ edges}$$

K_n $\qquad \alpha(K_n) = 1$

$\alpha(K_{m,n}) = n$

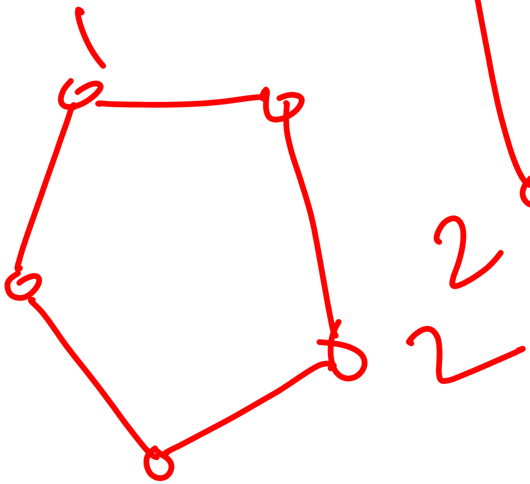


$\underline{\underline{n \geq m}}$

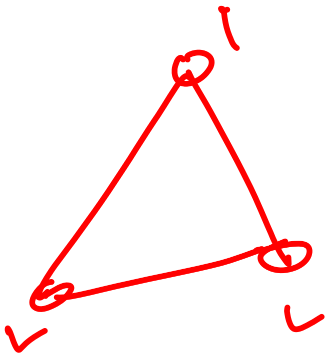


C_n

n is even?



$\left\lfloor \frac{5}{2} \right\rfloor = 2$

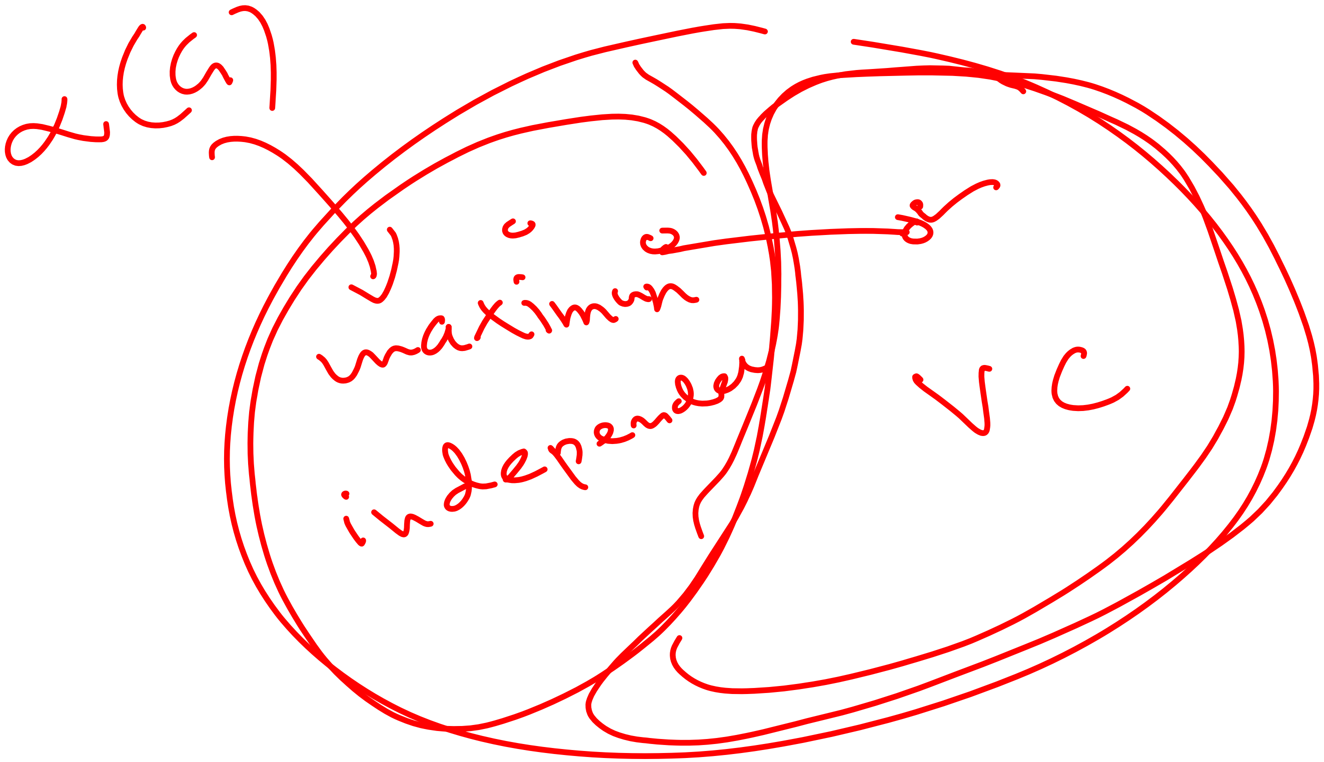


$\frac{n}{2}$

$\left\lfloor \frac{3}{2} \right\rfloor = 1$

$$\alpha(G) \geq n - |mvc|$$

$$|mvc| \geq n - \alpha(G)$$



$$|MVC| \leq n - \alpha(G)$$

$$|mvc(G)| = n - \alpha(G)$$

$$|mvc(G)| = \beta(G)$$

$$\alpha(G) + \beta(G) = n$$