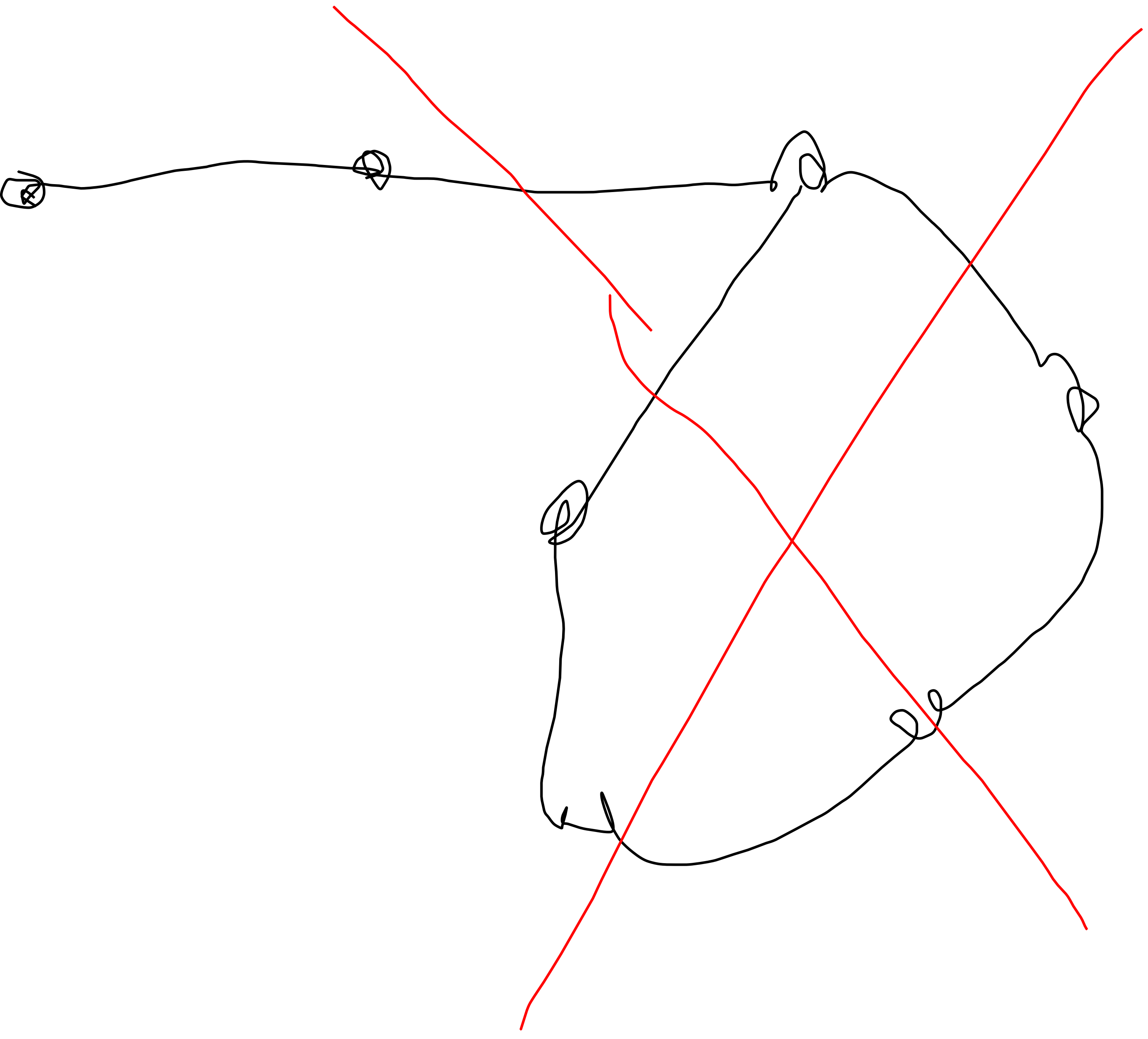
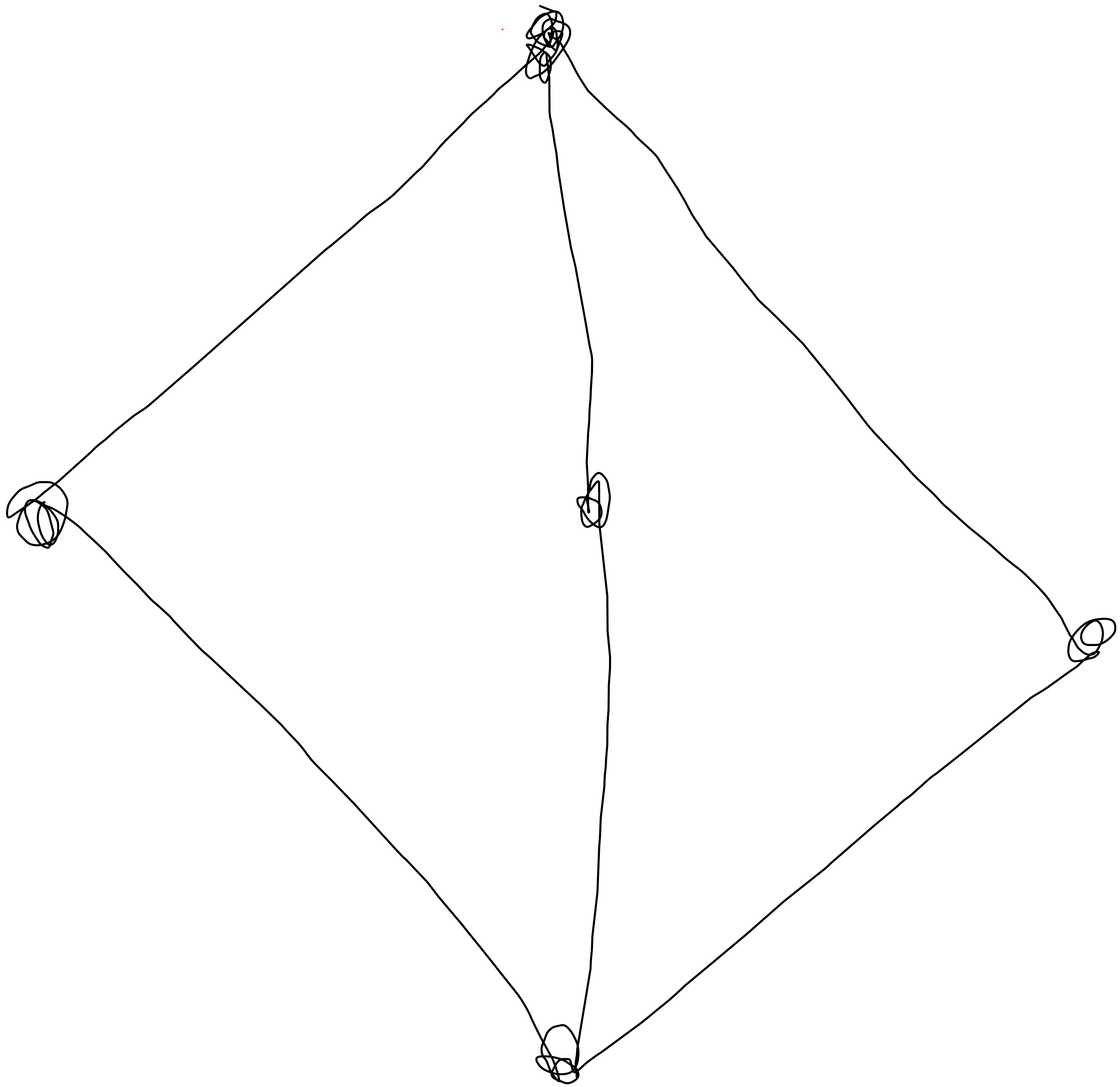
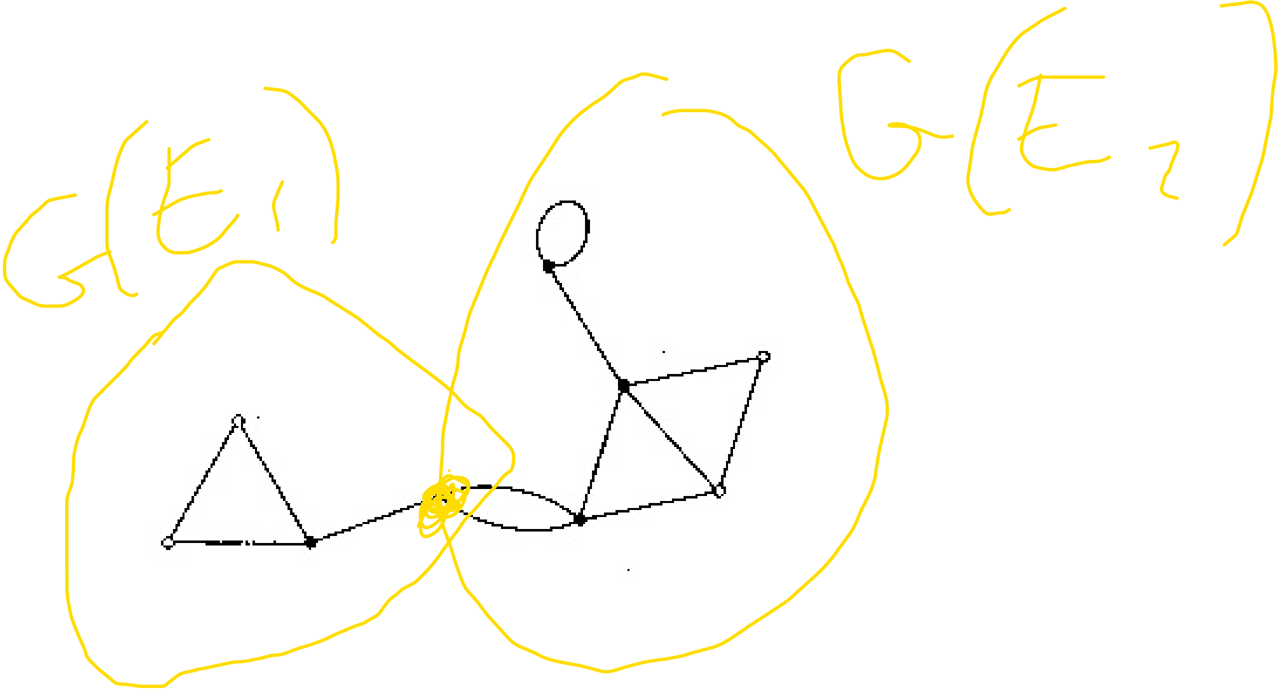
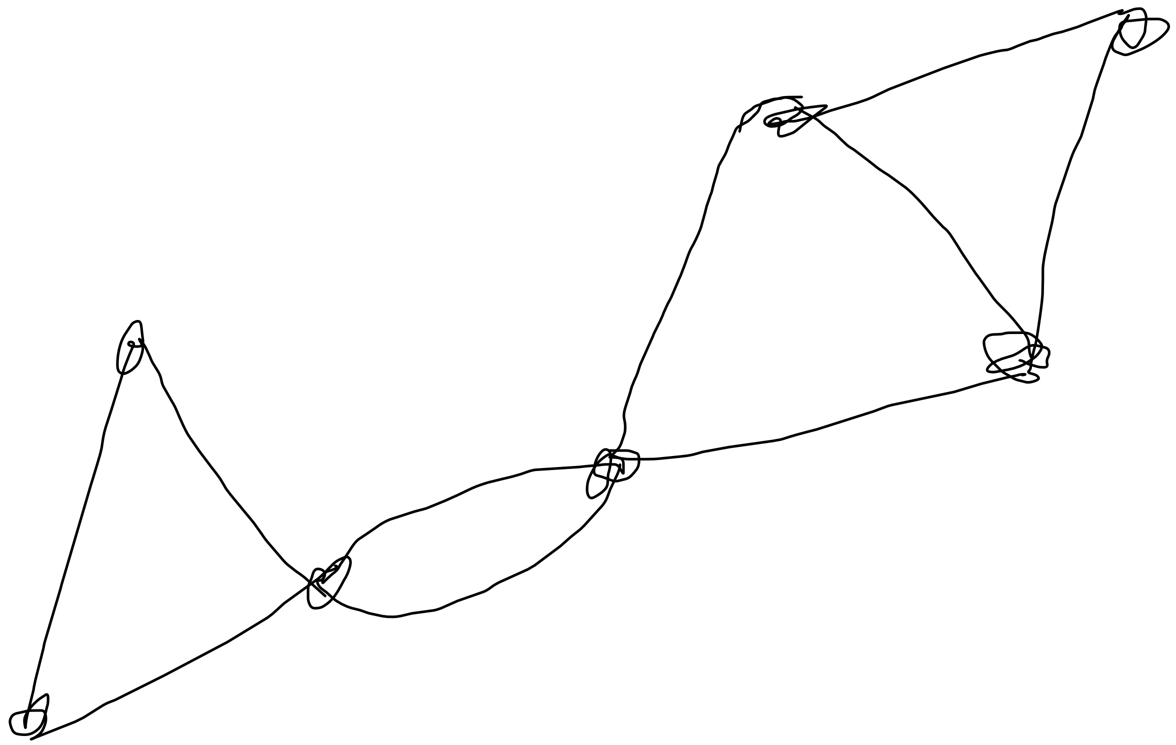
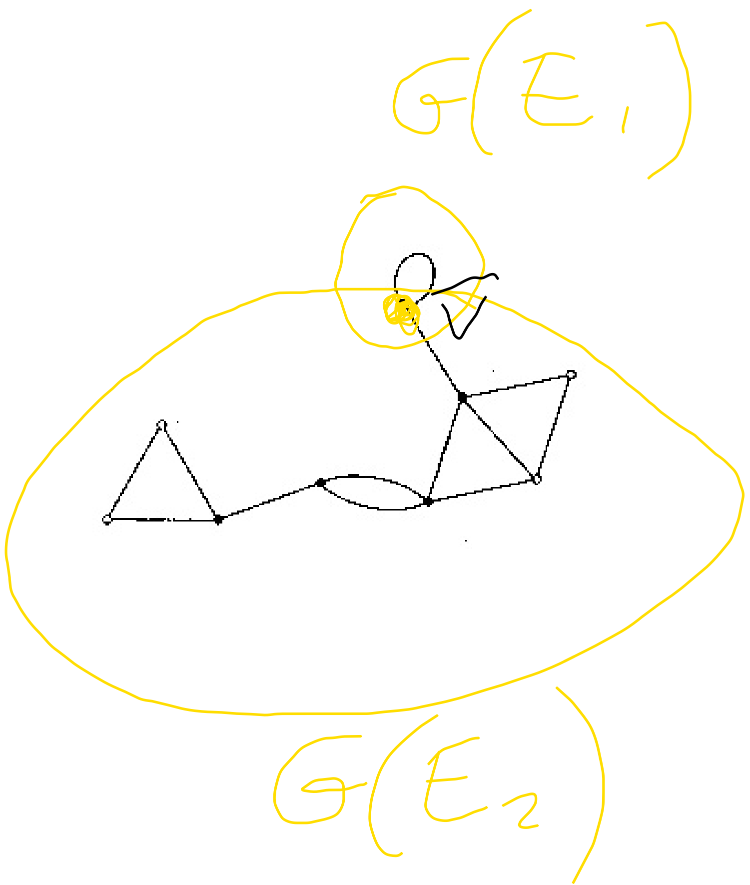




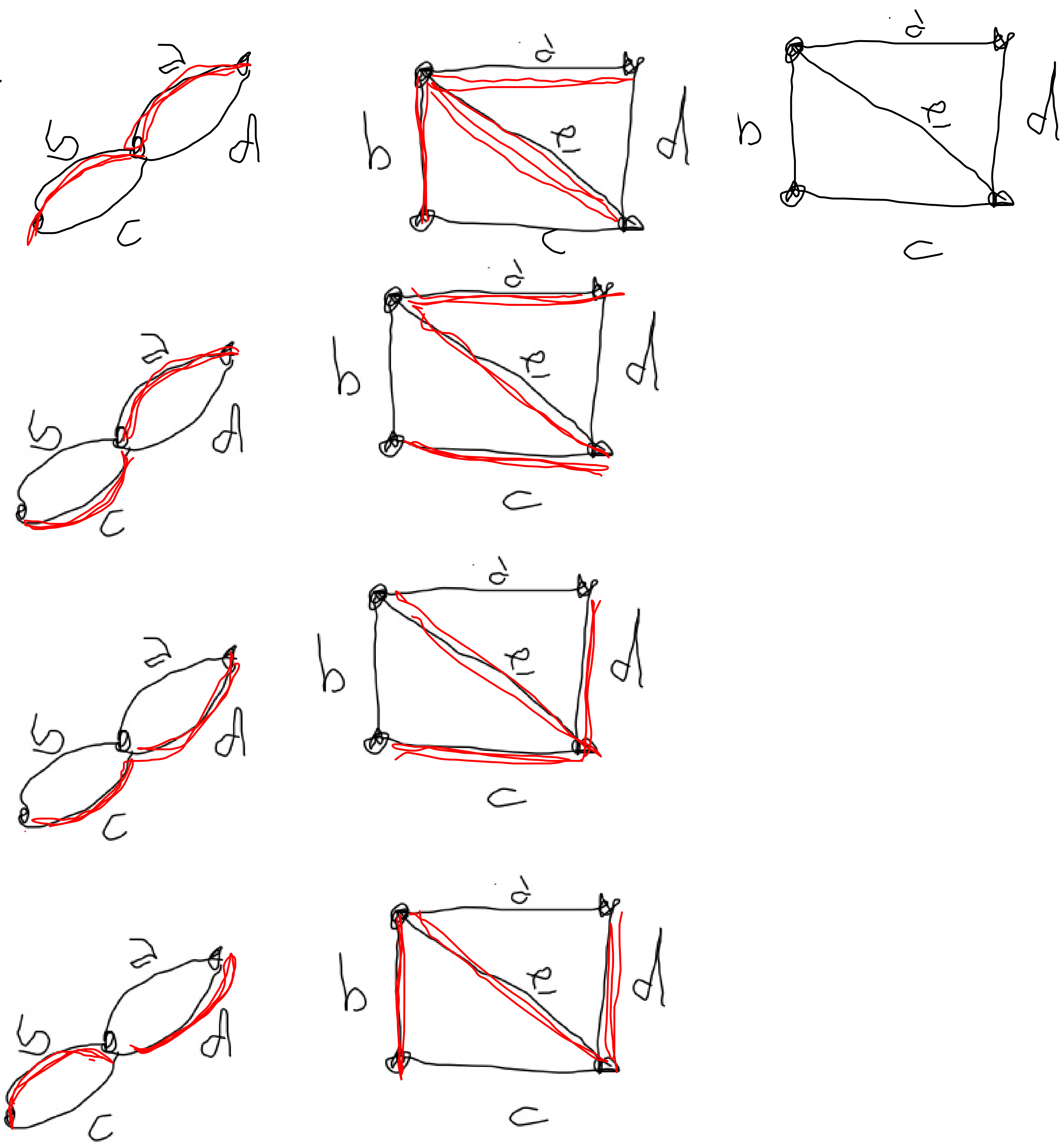

G(E1)
G(E2)

By deleting v and all incident edges I get

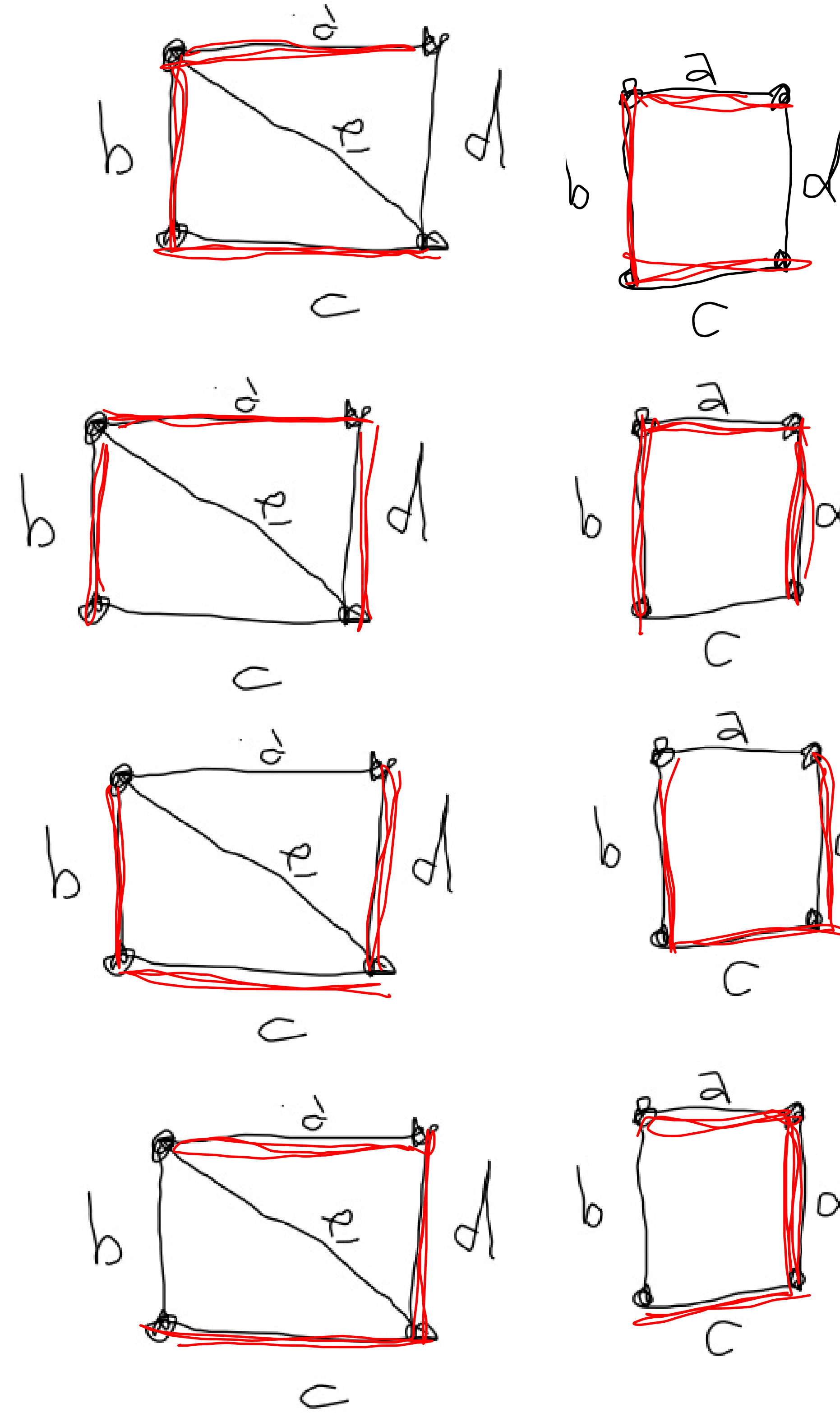




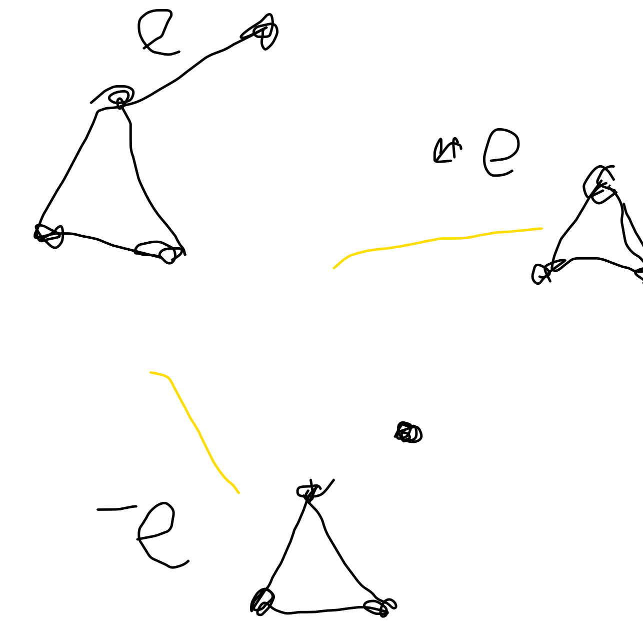
G * e



G - e

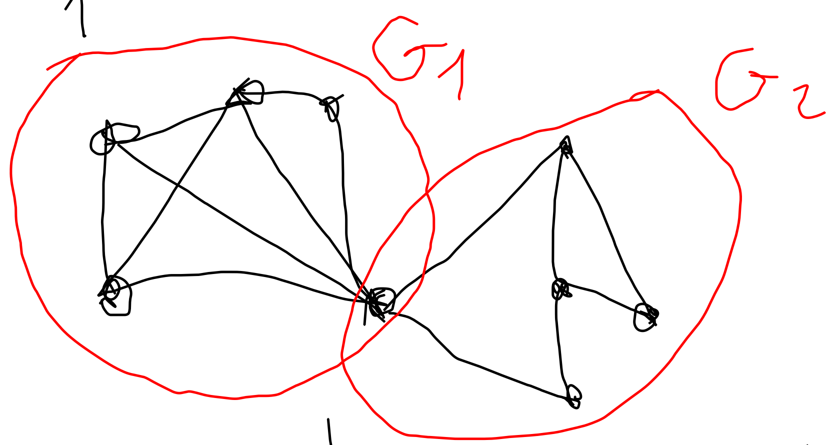


Shortcuts:



1) G disconnected $\Rightarrow \tau(G) = 0$

2) $G = G_1 \cup G_2$, where $G_1 \cap G_2$ is a vertex

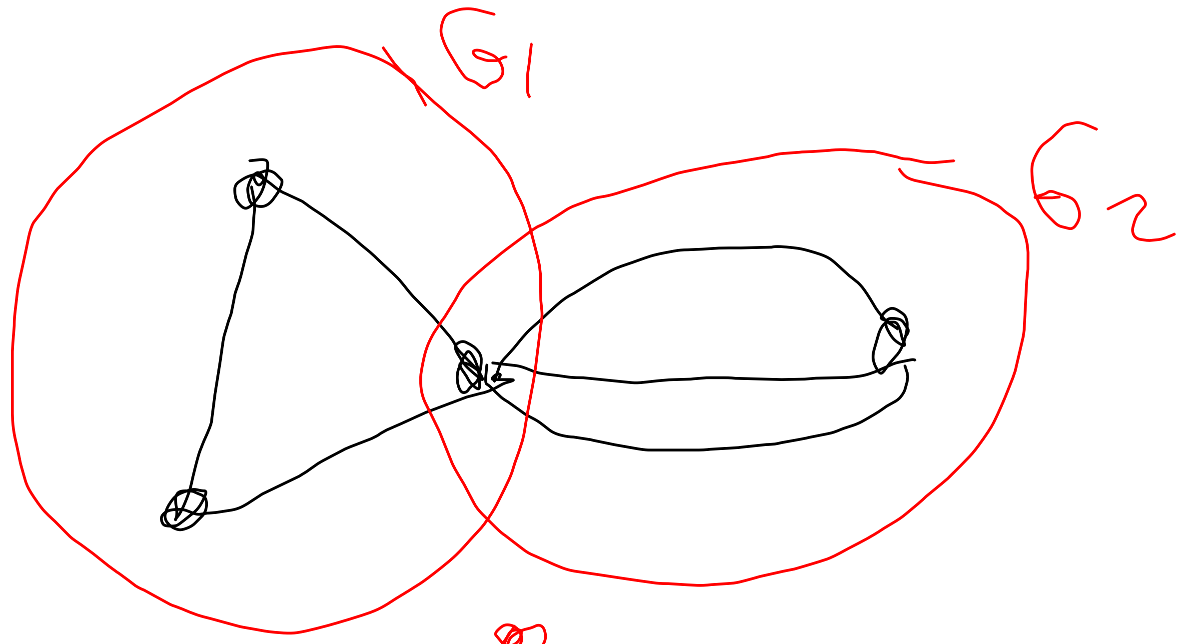


$$\Downarrow$$

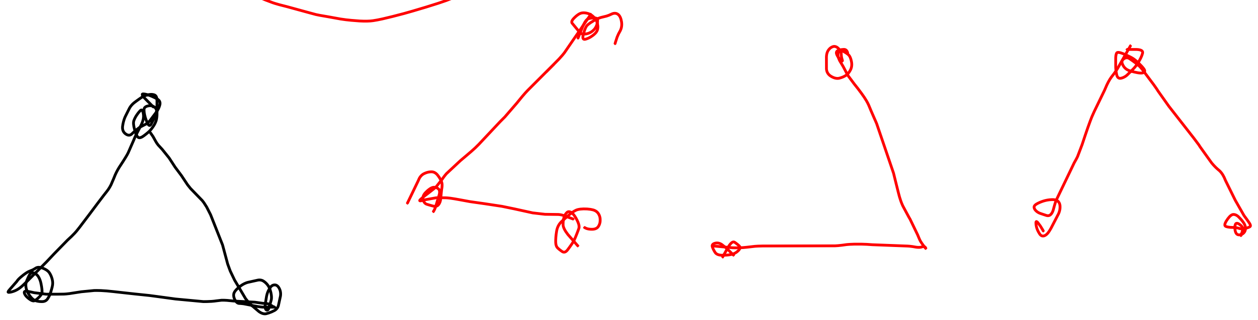
$$\tau(G) = \tau(G_1) \cdot \tau(G_2)$$

3) If you have multiple edges, each gives a different spanning tree

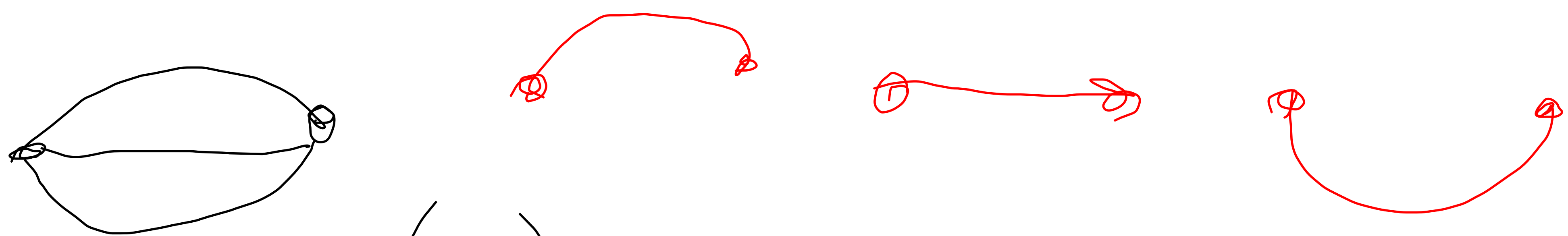
4) If G is a k-cycle, then $\tau(G) = k$



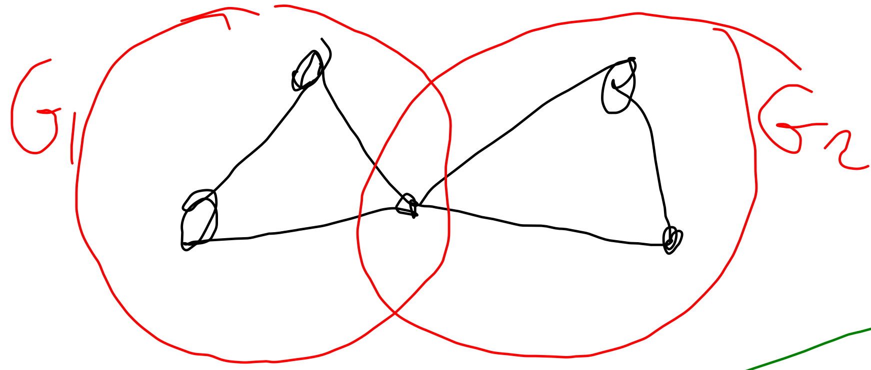
$$\tau(G_1) = 3$$



$$\tau(G_2) = 3$$



$$\tau(G) = 3 \cdot 3 = 9$$



$$\tau(G) = \tau(G_1) \cdot \tau(G_2) = 3 \cdot 3 = 9$$