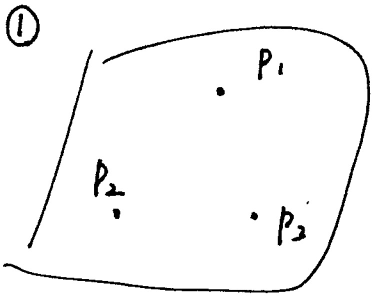
and a tetrahedron T' with h_1', h_2', h_3', h_4' and vertices

$$P_i' = \bigcap_{j \neq i} h_j'.$$

if $^\forall i$, $P_i' \in h_j$ for some j, then T' is said to be inscribed in T.

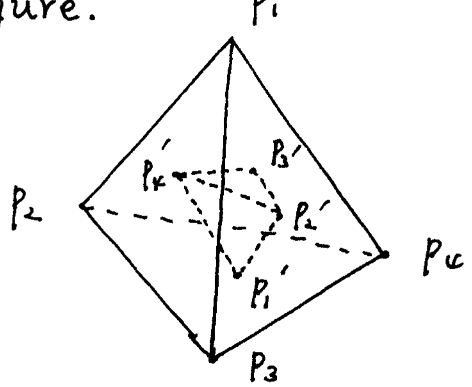
'Reasons' for the definition above.

① 

h_4 We can not define a line segment (complex) joining P_i and P_j.

② In h_4, $\overline{P_1P_2} \cup \overline{P_2P_3} \cup \overline{P_1P_3}$ does not seperate h_4 into pieces (connected components), since $\dim_{\mathbb{C}} \bigcup \overline{P_iP_j} = 1$ and $\dim_{\mathbb{C}} h_4 = 2$. $\Rightarrow$ We can not say 'outside', & 'inside' of $\triangle P_1P_2P_3$.

③ By ① & ②, as we can see in the 3-dimensional space, we don't have the following figure.



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