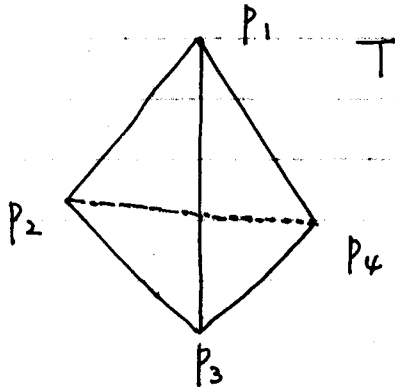


Thus, 'such configuration' means that  $\exists p_i'$  s.t.  $\forall i, p_i' \in h_i$ , and  $\overline{p_1' p_2' p_3'} \supset p_4$ ,  $\overline{p_2' p_3' p_4'} \supset p_1$ ,  $\overline{p_1' p_2' p_4'} \supset p_3$  and  $\overline{p_1' p_3' p_4'} \supset p_2$ . --- (\*)

One more thing on 'such configuration'



Let ①  $p_1' = p_2, p_3' = p_4 \Rightarrow T_1'$   
 $p_2' = p_1, p_4' = p_3$ , &  
 ②  $p_1' = p_2, p_3' = p_1 \Rightarrow T_2'$   
 $p_2' = p_4, p_4' = p_3$ .

Clearly, since  $\sigma(p_1, h_3) \neq \sigma(p_4, h_3)$ , by the context, 'such configuration' implies that  $p_i'$  is the focus of  $h_i$  &  $h_i'$  is the plane of lines through  $p_i$ . (For,  $T_1'$  &  $T_2'$  are the tetrahedrons inscribed & (otherwise) circumscribed about  $T$  satisfying (\*). But  $T_1' \neq T_2'$ .)

Anyway, 'such configuration' implies that  $\sigma(p_i', h_i)$ 's &  $\sigma(p_i, h_i')$ 's give some informations. Delicate!!!

Suppose  $T'$  is the dual tetrahedron of  $T$  with respect to  $X$ .  $\Rightarrow X_{h_i} = \sigma(p_i', h_i)$  for all  $i$

and  $X_{p_i} = \sigma(p_i, h_i')$  for all  $i$ .  $\Rightarrow \sigma(p_i', h_i) = L_i' \subset X$  and  $\sigma(p_i, h_i') \subset X$  for all  $i$ .

Conversely, assume that  $L_i$ 's &  $L_i'$ 's in  $G$  all lie in  $X$ .  $\Rightarrow$  We have to show that  $T'$  is the dual of  $T$  w.r.t.  $X$ . To do this, we have