particular, the Schubert cycle $L = \sigma(p,h)$ of lines through a point p and lying in a hyperplane $h \subset \mathbb{P}^3$ is called a pencil of lines. The common point $p = \bigcap_{x \in L} l_x$ of a pencil L is called its focus and will be denoted p_L; the plane $h = \bigcup_{x \in L} l_x$ swept out by the lines of the pencil is called simply its plane and will be denoted h_L.

⌜ Remember: $\sigma(p,h) = \{ l \in G(2,4) \mid p \in l \subset h \}$
$\Rightarrow$ $p = \bigcap_{x \in L} l_x$ and $h = \bigcup_{x \in L} l_x$ ⌟

Note that we can write, for any $x \in G$,

$$T_x(G) \cap G = \sigma(l_x) = \bigcup_{p \in l_x} \sigma(p) = \bigcup_{h \supset l_x} \sigma(h),$$

and conversely, for any line $L \subset G$,

$$G \cap \bigcap_{x \in L} T_x(G) = \sigma(p_L) \cup \sigma(h_L).$$

⌜ For $p \in l_x$, since $l \in \sigma(p) \Rightarrow p \in l \cap l_x$, $l \in \sigma(l_x)$. $\Rightarrow \bigcup_{p \in l_x} \sigma(p) \subset \sigma(l_x)$.

Given any $l \in \sigma(l_x)$, $l \cap l_x \neq \phi \Rightarrow$ choose $p \in$