

Recall that $T_x(X) \cap X$ is the set of all lines passing through x . See P764. By P792, L is a multiple component of $T_x(X) \cap X$ for some $x \in L \Leftrightarrow$ it is for all $x \in L$.

By the result on P792,
 $\{x \in X: l_x \text{ is tangent to } S'\} \overset{=K}{=} \Sigma \cup \Delta$, and
 $\Delta \subset K$. For $\pi^{-1}(S-R) \subset \Sigma$, by the note on P764,
 since $\forall x \in \pi^{-1}(S-R)$, l_x is tangent to S' , $\pi^{-1}(S-R) \subset K$. For $x \in \pi^{-1}(R)$, let $p = \pi(x)$. $p \in l_x \cap S'$
 \Rightarrow Since p is a double point of S' , l_x is tangent to S' at p . $\Rightarrow \pi^{-1}(R) \subset K$.

To find the degree of Δ , we make a second computation for the genus of the curve

$$D_V = \{L \subset X: L \cap V_3 \neq \emptyset\} \subset A.$$

See P781

Note that the generic $V_3 \subset \mathbb{P}^5$ meets X in a curve $E \subset V_3$ that is the smooth intersection of two quadrics on $V_3 \cong \mathbb{P}^3$.

$$V_3 \cap X = V_3 \cap (F \cap G) = (V_3 \cap F) \cap (V_3 \cap G).$$