first of all, $\dim \overbrace{\{ \ell \in G(2,4) \mid \ell \text{ is tangent to } S \text{ in } \mathbb{P}^3 \}}^{M} = 3$ since $\dim\{\text{tangent planes of } S\} = 2$ and, for each tangent plane, we have 1-dimentional lines tangent to S ($\because$ given a tangent plane h at $p \in S$. we have a pencil $\sigma(p,h)$. And $(K=0) = S \Rightarrow p \longmapsto (\nabla K \cdot X = 0)$ is generically one to one, and $\dim\{\text{tangent planes of } S\} = 2$. By the way, $S^* =$ Set of tangent planes of S and $\dim S^* = 2$)

$\Rightarrow \phi : G(2,4) \longrightarrow \mathbb{P}^5$, and consider $\phi^{-1}(F)$.

$\Rightarrow$ Since ϕ is transverse to F, $\phi^{-1}(F) \cap M$ is of dim 2, and $\phi^{-1}(F) \cap M$ is the set of lines tangent to S, and $\phi(\phi^{-1}(F) \cap M) = \Delta$.

$\lrcorner$

Similarly, this argument yields

$$\#(D_V \cdot \tilde{D})_A = 32,$$

hence

$$\#(B_L \cdot \tilde{D})_A = \frac{1}{4} \#(D_V \cdot \tilde{D})_A = 8$$

and likewise

$$\#(\Delta \cdot L)_X = 8.$$

$\ulcorner$ $\#(D_V \cdot \tilde{D})_A = \#(\Delta \cdot V_3)_{\mathbb{P}^5} = 32 \Rightarrow$ Since $D_V \sim 4B_L$,

$\#(B_L \cdot \tilde{D})_A = \frac{1}{4} \#(D_V \cdot \tilde{D})_A = 8$

Let L be a generic line in X. $\Rightarrow \Delta \cap L \ni x$

$\Leftrightarrow \exists$ a special line ℓ s.t $\ell \cap L \neq \phi \Leftrightarrow \ell \in B_L$

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