∏ ${}_6C_3 = \frac{5\cdot4\cdot6}{6} = 20$. choices of $\{L_i, L_j, L_k\}$
Given a line X_p contained in such a hyperplane h as above, there are $X_{p_1}, X_{p_2}, X_{p_3}$ s.t.
$h = \langle X_{p_1}, X_{p_2}, X_{p_3}, X_p \rangle$. ⇒ Choosing p_1, p_2, p_3 is choosing L_1, L_2, L_3 out of $\{L_i\}$. ∎

Finally, since we have 16 points $p \in R$, 20 special tetrahedra containing each p as a vertex, and four vertices on each tetrahedron, we see that there are exactly 80 such hyperplane sections of Σ.

∏ For each p, ∃ 20 hyperplanes.
But, for exaple, p_1, p_2, p_3, p_4 produce $\langle X_{p_1}, X_{p_2}, X_{p_3}, X_{p_4} \rangle$ four times. ⇒ $16 \times 20 \div 4 = 80$ hyperplanes. ∎

In sum, then,

The surface $\Sigma \subset \mathbb{P}^5$ contains 32 lines, forming two families of 16 disjoint lines, with each line meeting exactly six members of the opposite family. There are 80 hyperplanes in $\mathbb{P}^5$ intersecting Σ in the sum of eight lines — four from each family — forming the configuration of Figure 19; and every line in Σ lies on 20