Section 2, Chapter 4, at most $\sum_i ((d_i-1)(d_i-2)/2)$ of the latter.

$\ulcorner$ $\#(F_i \cdot F_j) = d_i d_j$ by Bezout theorem.

$\Rightarrow$ At most $\sum_{i \neq j} d_i d_j$ singular points of F of the former kind are.

By the result on P508,

$$g(F_i) \leqq \pi(F_i) - \sum \frac{k_j(k_j-1)}{2} \leqq \pi(F_i) - \rho_i$$

where ρ_i is the number of singular points on F_i.

$$\Rightarrow \quad \pi(F_i) = \frac{F_i \cdot F_i + F_i \cdot K_{\mathbb{P}^2}}{2} + 1$$

$$= \frac{d_i^2 + (-3H) \cdot F_i}{2} + 1 = \frac{d_i^2 - 3d_i + 2}{2}$$

$$= \frac{(d_i-2)(d_i-1)}{2} \quad \text{by P500.}$$

P500

$$\Rightarrow \quad \rho_i \leqq \frac{(d_i-1)(d_i-2)}{2} - g(F_i) = \frac{(d_i-1)(d_i-2)}{2} - g(\tilde{F}_i)$$

where $\tilde{F}_i$ is the desingularization of F_i.

$\Rightarrow$ Since $g(\tilde{F}_i) \geqq 0$ ($\because$ $g(\tilde{F}_i)$ = the number of handles of $\tilde{F}_i$.),

$$\rho_i \leqq \frac{(d_i-1)(d_i-2)}{2}.$$

$\lrcorner$

But we know that $\sum d_i = \deg F = 6$, and we have