

sents the cycle

$$A \sim 16 (\sigma_{2,1} \cdot \sigma_{2,1});$$

in particular, the intersection number of A with the Schubert cycles

$$\sigma_{1,1}(V_4) = \{L \subset \mathbb{P}^5: L \subset V_4\}$$

and

$$\sigma_2(V_2) = \{L \subset \mathbb{P}^5: L \cap V_2 \neq \emptyset\}$$

in $G(2,6)$ is given, according to our reduction formulas, by

$$\begin{aligned} \#(A \cdot \sigma_{1,1}) &= 16^{\#} (\sigma_{2,1} \cdot \sigma_{2,1} \cdot \sigma_{1,1})_{G(2,6)} \\ &= 16^{\#} (\sigma_1 \cdot \sigma_1)_{G(2,3)} \\ &= 16 \end{aligned}$$

and

$$\begin{aligned} \#(A \cdot \sigma_2) &= 16 \cdot (\sigma_{2,1} \cdot \sigma_{2,1} \cdot \sigma_2)_{G(2,6)} \\ &= 16 \cdot (\sigma_1 \cdot \sigma_1 \cdot \sigma_2)_{G(2,4)} \\ &= 16. \end{aligned}$$

By the result on p741, $\tau(F) = \sum_{i=1,4} \sim 2^2 \cdot \sigma_{2,1} = 4 \sigma_{2,1}$

$$\Rightarrow A = \tau(F) \cap \tau(G) \sim 16 (\sigma_{2,1} \cdot \sigma_{2,1})$$

$$\begin{aligned} \dim A &= (\dim \tau(F) + \dim \tau(G) = 2 \dim \sigma_{2,1}) - \dim G(2,6) \\ &= 2 \times (8-3) - 8 = 2. \end{aligned}$$

$$\sigma_{1,1} = \{ \Lambda: \dim(\Lambda \cap \bar{V}_{4+i-a_i}) \geq i \} \subset G(2,6)$$

$$= \{ \Lambda: \dim(\Lambda \cap \bar{V}_4) \geq 1, \dim(\Lambda \cap \bar{V}_5) \geq 2 \}$$

$\Rightarrow \Lambda \subset \bar{V}_5 \Rightarrow$ If we use projective planes,

$$\Lambda \subset \mathbb{P}(\bar{V}_5) = V_4 \Rightarrow \text{Since } \bar{V}_4 \subset \bar{V}_5, \Lambda \cap V_3 \neq \emptyset.$$

$$\Rightarrow \sigma_{1,1} = \{ \Lambda: \Lambda \subset V_4 \}.$$