Given any curve A_i of degree n passing through $P_1 \cdots \hat{P_i} \cdots P_k$, $A_i + B$ will contain Γ and so P_i lies on A_i. Consequently, the points $i_n(P_1) \cdots i_n(P_k)$ are linearly independent in $\mathbb{P}^N$.

This again implies (**). Q.E.D.

Γ The exceptional case means that B contains more than $\frac{n(n-3)}{2}+1$ points. Let's label our points (points selected) $P_1, \cdots P_{\frac{(n+3)n}{2}}$, so that the curve B of degree n-3 passes through exactly

$$P_k, \cdots P_{n^2}, \quad k \leq \frac{n(n+3)}{2}.$$

(In other words, in the exceptional case, we may have $P_1 \in A$. $\Rightarrow$ $P'_{\frac{n(n+3)}{2}} = P_1$ . . . In the argument above.)

Given any curve A_i of degree n passing through $P_1, P_2, \cdots \hat{P_i} \cdots P_k$, then by the Cayley-Bacharach property, $A_i + B$ contains Γ. Since B contains P_ν, $\nu \geq k+1$, A_i must contain P_i. $\Rightarrow$ $i_n(P_1) \cdots i_n(P_k)$ lie on a curve of degree n. "Remember that any degree n curve may be expressed as a linear combination of monomials $Z^\alpha = Z_0^{\alpha_0} \cdots Z_N^{\alpha_N}$." We don't need here.
$A_i \subset H \subset \mathbb{P}^N$ $\Rightarrow$ $\{i_n(P_1), \cdots i_n(P_k)\}$ is linearly dependent set. $\Rightarrow$ In both cases, $\{ i_n(P_1), \cdots i_n(P_{\frac{n(n+3)}{2}}) \}$ is linearly dependent