$\rho(a) = \pi^{-1}(j(a))$. $\Rightarrow$ By Theorem on P510, $\exists$ a holomorph map ρ s.t $\tilde{A}$ is the blow-up of A at all half-lattice points and

$$\begin{tikzcd} \tilde{A} \arrow[rr, "\rho"] \arrow[dr, "\pi"'] & \circlearrowright & \Sigma \\ & A \arrow[ur, "\rho"'] & \end{tikzcd}$$

$\Rightarrow$ By the proper mapping theorem, since Σ is irreducible, $\rho(\tilde{A}) = \Sigma$. $\Rightarrow$ $\rho : \underset{\substack{\shortparallel \\ \pi^{-1}(a_i)}}{E_i} \longrightarrow \pi^{-1}(p_i)$ where $j(a_i) = p_i$

is a branched covering map. If the sheet number is ≥ 2, ρ has branch points in E_i's. $\Rightarrow$ By the remark on P668, the ramification divisor of ρ is of dim 1. $\Rightarrow$ Contradiction $\Rightarrow$ The sheet number is 1. $\Rightarrow$ The branch locus is the exceptional divisors.

We first locate the 32 lines of Σ. Sixteen are obvious: there are the images X_p of the 16 exceptional divisors E_i, each of which has intersection number 1 with the system $|\pi^* 4\Theta - \sum \Sigma_i|$ and maps 1-1 onto a line in $\mathbb{P}^5$.

⌈ As we saw above, $\rho : E_i \longrightarrow \pi^{-1}(p_i) = X_{p_i}$ is one to one, and onto. X_{p_i} is a line in $\Sigma \subset \mathbb{P}^5$.