

$g(B_L) = 2$, and $g(\tilde{\Theta}_i) = 2$. This is obvious, since each $\tilde{\Theta}_i$ meets only six of the half-lattice points.

□

Now, by the same argument as before, for any $\lambda_1, \lambda_2, \lambda_3$, and $\lambda_4 \in A$ the divisor

$$(\Theta + \lambda_1) \cup (\Theta + \lambda_2) \cup (\Theta + \lambda_3) \cup (\Theta + \lambda_4)$$

will be in the linear system $|4\Theta|$ if and only if $\sum \lambda_i = 0$.

$$\begin{aligned} \Gamma[\Theta] & \text{ has multipliers } e_{\lambda'_\alpha} \equiv 1 & e_{\lambda'_{na}} \equiv e^{-2\pi i z_\alpha} \\ \Rightarrow \text{By } p_{3/2}, [\Theta + \lambda_j] & \text{ " } e_{\lambda'_\alpha} \equiv 1 & e_{\lambda'_{na}} \equiv e^{-2\pi i (z_\alpha + (\lambda_j)_\alpha)} \\ \Rightarrow \bigwedge_{j=1}^k [\Theta + \lambda_j] & \text{ " " } e_{\lambda'_{na}} \equiv e^{-2\pi i (z_\alpha + \sum_{j=1}^k (\lambda_j)_\alpha)} \end{aligned}$$

$$\Rightarrow [\bigcup_{j=1}^k \Theta + \lambda_j] = [4\Theta] \iff \sum_{j=1}^k (\lambda_j)_\alpha = 0 \text{ for all } \alpha.$$

$$\iff \sum_{j=1}^k \lambda_j = 0.$$

□

In particular, we see that the system $|4\Theta|$ contains the 80 divisors

$$\alpha_{ij} = \Theta \cup \Theta_i \cup \Theta_j \cup \Theta_{ij} \quad (1 \leq i < j \leq 5),$$

$$\beta_{ijk} = \alpha_{jk} + \mu_i = \Theta_i \cup \Theta_{ij} \cup \Theta_{ik} \cup \Theta_{lm} \quad (1 \leq i \leq 5; 1 \leq j < k \leq 5),$$

$$\gamma_{ij} = \Theta_{ij} \cup \Theta_k \cup \Theta_l \cup \Theta_m \quad (1 \leq i < j \leq 5),$$

$$\delta_{ij} = \gamma_{ij} + \mu_j = \Theta_i \cup \Theta_{jk} \cup \Theta_{jl} \cup \Theta_m \quad (1 \leq i \leq 5, 1 \leq j \leq 5),$$