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The Heisenberg group \mathbf{Heis}_{2n+1} is $\mathbb{R} \tilde{\times} \mathbb{C}^n$ with group operation given by $(s, \mathbf{z})(t, \mathbf{z}') = (s + t + 2\text{Im}\{\mathbf{z}\bar{\mathbf{z}}'\}, \mathbf{z} + \mathbf{z}')$. Thus it is a simply connected 2-step nilpotent Lie group. Let M be an infra-nilmanifold with \mathbf{Heis}_{2n+1} -geometry; that is, $M = \Pi \backslash \mathbf{Heis}_{2n+1}$, where $\Pi \subset \mathbf{Heis}_{2n+1} \rtimes \text{Aut}(\mathbf{Heis}_{2n+1})$ is a torsion free, discrete subgroup. By L. Auslander, the pure translations $\Gamma = \Pi \cap \mathbf{Heis}_{2n+1}$ forms a lattice and the quotient Π/Γ is a finite group, called the holonomy. It is known that the order of the holonomy group Ψ is bounded by a universal constant I_{n+1} . The main result is finding this number for $n = 2$. We prove that $I_3 = 24$. In other words, *the maximal order of the holonomy groups for M with the \mathbf{Heis}_5 -geometry is 24*. Let M be a complex hyperbolic 3-manifolds of finite volume. Let $\chi(M)$ be its Euler characteristic, and k be the number of ends of M . Then the main result implies that $\text{Vol}(M) \geq \frac{k}{9}$ and $k \leq -24\Pi^3\chi(M)$. (Received September 28, 2000)