MAT 150A Homework 8

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Fall 2014

1. Choose a subgroup $H \leq G$.

   Then $\exists \varepsilon > 0$ s.t.:

   (a) $\forall t_a \in H, \|a\| \geq \varepsilon$ as $t_a \in G$

   (b) $\forall \rho_\theta \in H, |\theta| \geq \varepsilon$ as $\rho_\theta \in G$

   Since our choice of H was arbitrary, any subgroup $H \leq G$ is discrete.