

From Mathematics to Generic Programming

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Solution.

We have a group with 101 distinct elements. Lagrange's Theorem tells us that *the order of any subgroup H in a finite group G divides the order of the group*. Well, [101 happens to be prime](#). So the only subgroups that can exist must have orders that are divisors of 101, otherwise we will have contradicted Lagrange's Theorem. The divisors of 101 are 1 and 101; the subgroups of G are $\{1\}$ and G , the trivial subgroups.