A 1.3

Let $G = \{g_1, \dots, g_n\}$ be a group.

Produce G_i via $\{g_i g_1, \dots, g_i g_n\}$

$G_i = g_i G$ then $G_i \overset{!}{=} G$

Theorem: $\forall i$: $g_i G = G = G g_i$

One g_i will be the inverse of another, producing e. With e it will produce g_i. Inverse and identity are unique.