Math 311 | Solution
Quiz 6 | 24 October 2002

1. Let G_1 and G_2 be groups. Define an *isomorphism* from G_1 to G_2.

   Solution: An isomorphism from G_1 to G_2 is a mapping ϕ from G_1 to G_2 that is one-to-one, onto, and operation-preserving, in the sense that

   $$\phi(gh) = \phi(g)\phi(h)$$

   for all g and h in G_1.

2. State Cayley's Theorem.

   Solution: Every group is isomorphic to a group of permutations.