FROM SYMMETRY TO GROUPS, HOMEWORK 1

Problem 1. (1) Show that the identity element in a group G is unique. That is, if e, e' are two elements both satisfying the identity element axiom then $e = e'$.
(2) Show that the inverse a^{-1} to $a \in G$ is unique.

Problem 2. Find as many non-isomorphic groups of the given order n as you can for $n =$
(a) 3, (b) 4, (c) 5, (d) 6, (e) 7, (f) 8, (g) 17

Do your best on Problem 2. We shall have a Math Auction on Thursday, you'll be bidding for your solutions with the TAC bucks.
TACs - don't miss your chance to win back some TAC bucks, have an extra group ready under your sleeve.