HW #11, due April 15th


Extra Problems for HW #11

Problem 1: Let $G$ be a an Abelian group and suppose that $G = H \times K$ for some $H, K \leq G$. Suppose $p$ is prime.

(a) Show that $G^p = H^p \times K^p$.

(b) (This is not correct!) Show that if $p$ divides $|H|$, then $|H| = p|H^p|$.