

University of Colorado
Department of Mathematics
Problem of the Month
February 2014

Assume that integers $m, n > 1$ satisfy $\gcd\left(\binom{m}{2}, \binom{n}{2}\right) = 1$. Show that if a group G satisfies $(xy)^m = x^m y^m$ and $(xy)^n = x^n y^n$ for all $x, y \in G$, then G is abelian.