1023-20-680   **Gabriela Mendoza*** (`mendoza@math.binghamton.edu`), State University of New York at Binghamton, Department of Mathematical Sciences, Binghamton, NY 13902-6000. *For a given prime p, what is the smallest nonabelian simple group whose order is divisible by p?*

In this talk we will show that for any prime $p > 3$, the group $PSL(2, p)$, the projective special linear group of rank 2 over the field of p elements and which has order $p(p^2 - 1)/2$, is the smallest nonabelian simple group whose order is divisible by p. For $p = 2$ and 3 the group in question is A_5, the alternating group on 5 letters. This answers a question posed at the Zassenhaus Conference 2005 at the University of Alabama in Montgomery. (Received September 20, 2006)

1