

**MATH 113: DISCRETE STRUCTURES**  
**HOMEWORK DUE WEDNESDAY WEEK 13**

*Problem 1.* Read §6.5 of *DM:EB*. Comment on the relative merits of the book's proof and the one we discovered in class.

*Problem 2.* Let  $p$  be prime and  $a$  be an integer  $1 \leq a \leq p - 1$ . Consider the product

$$a(2a)(3a) \cdots ((p-1)a)$$

and use your result from Problem 2 of HW13M to deduce Fermat's little theorem.