Quiz 3

Math 145, Abstract Algebra, Duchin

(1) Prove that the order of any group element is equal to the order of its inverse.

(2) Prove that the order of a^5 is less than or equal to the order of a for any element a of any finite group.

(3) Give an example of a group and an element a for which $1 < o(a^2) < o(a)$.