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Reading Assignment 14
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Corollaries 24.5 and 24.6 both follow from Lagrange's Theorem. Corollary 24.5 helps us to find subgroups of a group. It says that there will be at least one subgroup of G with a prime order when G contains more than just the identity element. It does not guarantee that a subgroup with an order equal to each prime number exists, it only lets us know that there is at least one. The proof for corollary 24.5 uses part (ii) of Theorem 21.3 to construct a subgroup with prime order from some other arbitrary subgroup of G.

Corollary 24.6 shows us that for any element in a group G we can find the identity element of G by taking that element to the power of the order of G. This result comes from the fact that the order of every subgroup of G divides the order of G.