In the presented summary work we study the inverse problem in additive number theory. More speci cally, we try to characterize sets A of positive integers if we know some information about their sumsets 2A = A + A. At the beginning we devote some time to nite sets with the property |2A| = 2|Aj| - 1, then we solve a generalized problem for such abelian groups G in whose order of all elements is bounded by a constant rand their subsets A satisfying j2Aj cjAj. At the end we present the famous Freiman theorem, which describes sets of positive integers A small in the sense |2A| - c|A|. We prove this theorem and give some corollaries and applications.