

ABSTRACT. This paper is devoted to a class of problems called " chase problems " because they are stated generally in the following form (see the textbooks [1] and [2]): " A greyhound follows a fox which has 60 long jumps in advance. While the greyhound jumps 6 times, the fox jumps 9 times but the length of 3 long jumps of the greyhound equals the length of 7 long jumps of the fox. Can the greyhound catch up with the fox ? [2], - Problem 25).

We give two different ways for solving such problems. The first method is based on a time - space dichotomy and permits to generalize this type of problems. By means of problem 3 and its solution we encourage the reader to propose himself as much problems as he want. Finally, other two directions in generalizing this type of problems are given.