The purpose of this study is to investigate effects of sleeping hours and study time on students’ achievement and to find at which points the minimum and maximum achievement level occurs. Participants of this study are 8th grade students who are students of a public secondary school in Isparta, Yenisarbademli. 12 students participated in this research. Results of five trial exams that students were used in order to determine achievement levels of students. The data for students sleeping hours and study time emerged from interviews. During the interview, students were asked about their sleeping hours and study time of in a week period before each exam. Data that emerged from interview were categorized by the researcher. Data were evaluated using MATLAB 7.012. (R2011A). In this study, minimum and maximum points were identified using global optimization methods.