The key aim of this research was to investigate the metacognitive mathematics tutor impact on students learning and metacognition. Student needs special learning strategies to experience better learning in mathematics. Metacognitive Mathematics tutor is an intelligent tutoring system which supports three metacognitive learning strategies self explanation, self questioning and self monitoring. Metacognition is higher order thinking. Metacognitive strategies are learning strategies which supports student learning. Students can improve their learning through metacognition skills. Total 70 students were involved in evaluation of Metacognitive mathematics tutor, 35 were sixth and 35 were seventh grade students. Pretest and Posttest experimental design was used for evaluation. Students used mathematics practice sheet in pretest then in posttest they had used Metacognitive mathematics tutor. A quiz was conducted to measure learning while Jr. MAI version B was also given to assess metacognitive skills. Results show that students learning have increased and also their metacognition after using the metacognitive mathematics tutor. Statistically significant difference in results between pretest and posttest (Man-Whitney, p