

Title: Using artificial intelligence in mathematics teaching in higher secondary schools

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Abstract: The aim of this bachelor's thesis is to explain what artificial intelligence is, what technologies use it and how it can be used in high school mathematics teaching. The first chapter explains the concept of artificial intelligence, its typical characteristics, and where it is currently used in the real world and in the social and natural sciences. From the second chapter, the thesis focuses on the use of artificial intelligence in high school mathematics. Directly in the second chapter, the thesis examines whether artificial intelligence manages the expected student outputs and the curriculum according to the Framework education programme for grammar schools so that it can be used as an aid in teaching high school mathematics. The final chapter compares the two chatbots to show how they can differ, and which can be better used for a certain type of task. The final chapter also shows how chatbots can generate queries for other applications; specifically, in this work, it is *Wolfram Alpha*.

Keywords: Artificial intelligence, teaching high school mathematics, chatbot