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Bachelor's Thesis: Chair for Foundations of Software Reliability and
Automatic generation of exercises on Turing machines   Theoretical Computer Science

Turing machine problem generation

This is a survey about the problem type "While to TM" on Automata Tutor. To take part, please solve one premade and one randomly generated exercise.

Premade exercise

You can find the premade exercise under "Practice Problem Sets". Please keep track of how many attempts and how much time it takes you to solve the exercise.

Afterwards, fill out this form:

Number of attempts:	_____
Time in minutes:	_____
Final grade:	_____
Difficulty denoted in the problem description:	_____

Please describe if you found the difficulty of the exercise appropriate for the difficulty denoted in the problem decription.

	too easy	easy	just right	difficult	too difficult
The exercise was...					

Generated exercise

To generate an exercise, go to "Exercise", select the problem type "While to TM" and click "generate". Optionally, you can specify a difficulty range by selecting "best in difficulty range" and entering a lower and an upper bound.

Please keep track of how many attempts and how much time it takes you to solve the exercise.

Afterwards, fill out this form:

Number of attempts:	_____
Time in minutes:	_____
Final grade:	_____
Difficulty denoted in the problem description:	_____

Please describe if you found the difficulty of the exercise appropriate for the difficulty denoted in the problem decription.

	too easy	easy	just right	difficult	too difficult
The exercise was...					

Understanding

Please describe your understanding of the topic by checking one option for each of the following statements.

	Before the exercises	After the exercises	Not yet
I understand how the variables of a while-program can be encoded in a Turing machine.			
I know how to perform arithmetic operations on the tapes of a Turing machine.			
I know how to realize expressions of the form x == 0 in a Turing machine.			
I know how to realize expressions of the form x < y in a Turing machine.			
I know how to realize if and while statements in a Turing machine.			

	Yes	No
I have learned something from the exercises.		

User interface

Please rate the usabilty of the user interface and its components.

	Unusable	Hindering	Usable	Intuitive
Problem generation				
Problem description				
Turing machine construction				
Tape simulator				
Feedback				
Overall				

Comments

Here you can give any feedback that was not covered by the questions above. (what you liked / disliked, what could be improved etc.)

Thank you for taking part in this survey.