

CPSC-354 Report

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Abstract

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1 Introduction

2 Week by Week

2.1 Week 1

2.1.1 Homework

Here is my work on the MU Puzzle:

$$MIU \rightarrow MIUIU \rightarrow MIUIUIU \rightarrow \dots$$

$$MI \rightarrow MII \rightarrow MIII \rightarrow MUI \Rightarrow MUI$$

$$MUI \rightarrow MUIU$$

$$MUI \rightarrow MUIU \rightarrow MUIUIU \rightarrow MUIUIUIU \rightarrow MUUIU \rightarrow MUUIUIU \rightarrow \dots$$

$$MUIIU \rightarrow MUIIUUIU \rightarrow MUIU$$

$$MUIIU \rightarrow MUUIU \rightarrow MUIU$$

$$MUIU \rightarrow MUUIU \rightarrow MUIUIU \rightarrow MUIUIUIU \rightarrow \dots$$

$$MUIUIUIU \rightarrow MUIUIUIUIU \rightarrow MUIUIUIUIUIU \rightarrow \dots$$

The MU Puzzle is unsolvable because it is impossible to reach the string MU starting from MI using the given rules. After a little research and thinking on my part it is the number of I's that make this impossible: rule applications can double the count, add one, or remove three at a time, however, none of these operations ever reduce the number of I's to exactly zero. Since MU has no I's, it can never be derived.

2.1.2 Questions

What rules could we add or remove in order to make this possible? I was thinking are there any ways to make this question solvable by adding only one more rule or maybe altering a rule. I think that this is an interesting question and concept.

3 Essay

4 Evidence of Participation

5 Conclusion

References

[BLA] Author, [Title](#), Publisher, Year.