Assignment 3

Truth tables

due Sep. 24

Goals: use truth tables to analyze logic rules, produce tables in LaTeX.

Let A, B and C be propositions.

1. Construct the truth table of the proposition

$$\Big(A \Rightarrow B \quad \wedge \quad B \Rightarrow C\Big) \Rightarrow \big(A \Rightarrow C\big)$$

and comment.

2. Compare the truth values of $A \vee \big(B \wedge C\big)$ and $\big(A \vee B\big) \wedge \big(A \vee C\big)$.

3. Is $A \vee B \wedge C$ a well-defined proposition? Explain.

Presentation: your answer should be prepared with LaTeX and submitted in .pdf format, under the name `m150f19_HW3_yourlastname.pdf`

Grading:

- **Spelling:** 1 point, **Question 1:** 5 points, **Question 2:** 5 points, **Question 3:** 4 points,
- **Requirement:** at least one of your tables should use the command `\multicolumn`.
- **Resource:** **sharelatex.com/learn/latex/Tables**