Intro

This serves as a personal note for learning about Temporal Logic of Action (TLA).

Definitions that will come handy

I rather lay out all the definitions needed for the learning of the subject. It always feels good to have a place where all of the newly-learned definitions live, so I can come back and review each of them anytime I want.

I will be just laying out definitions and sometimes with a few examples. This section should be treated as a reference (usually at the end of a book).

Assuming we all have some understanding on propositional logic, such as familiarity with concepts like premises, conclusion and deduction, we can start with a few basic definitions.

Definition 0.1 (Predicate)**.** A predicate is a function from variables to $\{TRUE, FALSE\}$

For example, $P(X) := X$is the multiple of two is a predicate depending on the variable X.

Depending on the input, the predicate can be true or false. In this example, $P(1)$ is false and $P(2)$ is false.