Refutation of optimization as complex programming

Abstract: The optimization paradigm is *not* tautologous, hence refuting complex programming as that paradigm as a new class.

We assume the method and apparatus of Meth8/VŁ4 with Tautology as the designated *proof* value, **F** as contradiction, N as truthity (non-contingency), and C as falsity (contingency). Results are a 16-valued truth table in row-major and horizontal, or repeating fragments of 128-tables for more variables.

LET p, q, r, s: x_0, x, G, f;
~ Not; + Or; & And; > Imply, greater than, →; < Not imply, lesser than, ∈;
= Equivalent; @ Not Equivalent;
necessity, for all or every; % possibility, for some or one;
x≤y ~(y<x); x≥y ~(x>y).

From: Shipilevsky, Y. (2018). Complex programming. vixra.org/pdf/1810.0073v1.pdf
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"Its well-known that an optimization problem can be represented in the following way:

Given: a function f: G → R from some set G to the real numbers
Sought: an element x_0∈G such that $f(x_0) \leq f(x)$ for all x∈G
("minimization") or such that $f(x_0) \geq f(x)$ for all x∈G ("maximization")." (1.0)

We rewrite Eq. 1.0 as an implication, excluding the Given as unneeded for our analysis.

If f(x0) ≤ f(x) for all x∈G ("minimization")
or f(x0) ≥ f(x) for all x∈G ("maximization"), then there is an element x0∈G. (1.1)

(((#q<r)>~((s&q)<(s&p)))+((#q<r)>~((s&q)>(s&p))))>%(p<r) ;
CTCT CCCC CTCT CCCC (1.2)

Eq. 1.2 as rendered is *not* tautologous, meaning the optimization problem is refuted. What follows is that complex programming as that paradigm is also *not* tautologous and hence refuted as a new class.