Imaginary numbers are not tautologous

We use the apparatus and method of the Meth8/VŁ4 modal logic model checker where the designated *proof* value is `T` and 16-valued result table is row-major and horizontal.

Definition of the imaginary number: i^2 = -1 as i=±(-1)^0.5 (1.0)

LET q imaginary number root; (%q>#q) 1, `N`on-contingency; ~(%q>#q) ~1, `C`ontingency.

((q and q) or (~q and ~q)) equals ~1. (1.1)
((q& q)+(~q&~q)) = ~(%q>#q) ; `CCCC CCCC CCCC CCCC` (1.2)

Eq. 1.2 as rendered is *no*t tautologous. This means Eq. 1.0 is refuted.

Eq. 1.2 means the definition of the imaginary number in Eq. 1.0 is contingent, the value for falsity.

We attempt to strengthen Eq. 1.1 by replacing the Or connective with And.

((q and q) and (~q and ~q)) equals ~1. (2.1)
((q& q)&(~q&~q)) = ~(%q>#q) ; `NNNN NNNN NNNN NNNN` (2.2)

Eq. 2.2 as rendered is *not* tautologous. This means Eq. 1.0 is further refuted. Eq. 2.2 means the definition of the imaginary number in Eq. 1.0 can be coerced to be non-contingent, the value for truthity, but still *not* tautologous.