Nontrivial Collatz cycles correspond to the expression (1.1) or (1.2):

\[
\frac{(3a+1)(3b+1)(3c+1)}{abc} = 2^h \quad (1.1) \quad \frac{(A+1)(B+1)(C+1)}{ABC} = \frac{2^h}{3^m} \quad (1.2)
\]

The central part of transformation (2) from expression (1.2) corresponds to the sequence \((3n+1)\) for negative numbers.

\[
\frac{(A'+1)(B'+1)(C'+1)}{A'B'C} = \frac{ABC}{(A-1)(B-1)(C-1)} \equiv \frac{3^m}{2^h} \quad (2)
\]

The sequence \((3n+1)\) for negative numbers actually has nontrivial cycles. The left part of expression (2) correspond to the Collatz sequence for even numbers.

\[
\frac{3^m}{2^h} \equiv \frac{(A'+1)(B'+1)(C'+1)}{A'B'C} \neq \frac{ABC}{(A+1)(B+1)(C+1)} \quad (3)
\]

In accordance with (3), expression (1.2) for even numbers and for odd numbers are not identical with respect to a series \(\frac{3^m}{2^h}\), so in the sequence \((kn+1)\) the presence of non-trivial cycles for together positive and negative numbers is excluded.