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Abundant exact solutions to the discrete complex mKdV equation by Darboux transformation

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Highlights

- The N -fold Darboux transformation of the discrete cmKdV equation, in terms of determinants, is obtained for the first time.
- Abundant new exact solutions including the anti-dark soliton, breather, periodic, and two-soliton solutions are derived.
- Via numerical simulation, the dynamical behavior of the two-soliton solution including an anti-dark solitary wave and a w-shaped solitary wave is reported for the first time.

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