New Rational Form Solutions to mKdV Equation

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Abstract: In this paper, new basic functions, which are composed of three basic Jacobi elliptic functions, are chosen as components of finite expansion. This finite expansion can be taken as an ansatz and applied to solve nonlinear wave equations. As an example, mKdV equation is solved, and more new rational form solutions are derived, such as periodic solutions of rational form, solitary wave solutions of rational form, and so on.

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