Travelling Wave Solutions for Generalized Pochhammer-Chree Equations

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In this paper, by means of a proper transformation and symbolic computation, we study the travelling wave reduction for the generalized Pochhammer-Chree (PC) equations (1.3) and (1.4) by use of the recently proposed extended-tanh method. As a result, rich travelling wave solutions, which include kink-shaped solitons, bell-shaped solitons, periodic solutions, rational solutions, singular solitons, are obtained. At the same time, using a direct assumption method, the more general bell-shaped solitons for the generalized PC Eq. (1.3) are obtained. The properties of the solutions are show in figures.

Key words: Generalized PC Equations; Extended-tanh Method; Solitons; Symbolic Computation.