On Generalized Multi Poly-Euler Polynomials with Two Parameters a and b

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Abstract

In this paper are established more identities of generalized multi poly-Euler polynomials with two parameters which are expressed in terms of Stirling numbers and some generalized Bernoulli polynomials.[36]

Introduction

Euler numbers and polynomials have strong connections with Bernoulli numbers and polynomials, particularly, in the structures of their properties and generalizations. Several properties and generalizations of Bernoulli numbers and polynomials are analogous to those of Euler numbers and polynomials. For example, Kaneko[37] introduced the poly-Bernoulli numbers, denoted by $B_n^{(k)}$, as follows

$$\frac{\mathrm{Li}_k(1-e^{-x})}{1-e^{-x}} = \sum_{n=0}^{\infty} B_n^{(k)} \frac{x^n}{n!}$$

where

$$\mathrm{Li}_k(z) = \sum_{n=1}^{\infty} \frac{z^n}{n^k}$$

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[37] M. Kaneko (1997), " Poly-Bernoulli Numbers," *J. Théor. Nombres Bordeaux*, 9 :221–228.