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Bernoulli polynomials.

In this paper, we derive eight basic identities of symmetry in three variables related to Bernoulli polynomials and power sums. These and most of their corollaries are new, since there have been results only about identities of symmetry in two variables. These abundance of symmetries shed new light even on the existing identities so as to yield some further interesting ones. The derivations of identities are based on the p-adic integral expression of the generating function for the Bernoulli polynomials and the quotient of integrals that can be expressed as the exponential generating function for the power sums. (Received August 08, 2010)