

Title: Some Pexider-type generalizations of the symmetrized multiplicative functional equation on monoids

Author(s): Bruce Ebanks

The symmetrized multiplicative functional equation on a semigroup is f(xy) + f(yx) = 2f(x)f(y), and it is known that such a function must be multiplicative if the co-domain is a field of characteristic different from 2. Here we consider some generalizations including the fully Pexiderized equation f(xy) + g(yx) = h(x)k(y) for four unknown functions f, g, h, k. This equation has been solved on groups; here we solve it on monoids. Other related functional equations are also treated.

Address:

Bruce Ebanks Department of Mathematics University of Louisville Louisville, Kentucky 40292 USA