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Eric B. Kahn* (ekahn@bloomu.edu), 222 Ben Franklin Hall, Bloomsburg University, Bloomsburg, PA 17815. The Generalized Burnside and Representation Rings.

For groups G and H, the generalized Burnside and representation rings are the Grothendieck constructions of the semiring of (GxH)-sets with a free H-action and of the semiring of rational (GxH)-modules that are free as rational H-modules respectively. The canonical map between these two rings mapping the isomorphism class of a G-set X to the class of its permutation module is known as the linearization map. For p a prime number and H the unique group of order p, we describe the generators of the kernel of this map in the cases where G is an elementary abelian p-group or a cyclic p-group. (Received September 16, 2009)