If M and H are permutation groups with cycle indices $Z_M$ and $Z_H$ respectively, and if $*$ is some binary operation on permutation groups, then a fundamental problem in enumerative combinatorics is the determination of a formula for $Z_M * H$ in terms of $Z_M$ and $Z_H$. To this end, a number of results have already been obtained (cf. Harary [1], [2], [3]; Harary and Palmer [6]; Harrison and High [7]; Pólya [10]). This paper may be viewed as a continuation of a previous paper (Kamuti [8]) in which I have shown how the cycle index of a semidirect product group $G = M \rtimes H$ can be expressed in terms of the cycle indices of M and H by considering semidirect products called Frobenius groups. Thus if $G = M \rtimes H$ (internal direct product), the aim of this paper is to express the cycle index of $G$ in terms of the cycle indices of M and H when $G$ acts on the cosets of $H$ in $G$. 