

Because r_{α} is simply another way of writing R_{α}^{λ} , and the terms R_1, R_{λ} , etc., are the roots of a pure uni-serial Abelian, it follows that r_1, r_{λ} , etc., have the forms of the roots of a pure uni-serial Abelian. By putting e , then, in (148) successively equal to $1, \lambda, \alpha, \dots, \theta$, the $n - 1$ terms in (146) are obtained with the forms assigned to them in (145).

Sufficiency of the Forms.

§ 64. We here assume that the terms forming the series (146) are taken as in (145), and we have to show that the expression (140) is the root of a solvable irreducible equation of the n^{th} degree; provided always that the equation of the n^{th} degree, of which it is a root, is irreducible. Because the terms forming the series (146) are taken as in (145), the system of equations (147) subsists. Therefore, by a course of reasoning precisely similar to that used in an earlier part of the paper to show that the n values of the expression (2), obtained by giving s successively the values $0, 1, 2, \dots, n - 1$, are the roots of an equation of the n^{th} degree, it can now be shown that the n values of the expression (140), obtained by taking the values of $R_1^{\frac{1}{n}}$ for a given value of R_1 , are the roots of an equation of the n^{th} degree, that is, of an equation of the n^{th} degree with rational coefficients.