G is less than $\frac{1}{2}(t^2 - t + 6) + \varepsilon(t-1) + (t+\varepsilon)!/\varepsilon!$ *unless the class is less than* $n - 2t + 3$.

The inequality

$$\frac{n(n-1)\cdots(n-t+1)(n-t-\varepsilon)(n-t-\varepsilon-2)\cdots(n-3t-\varepsilon+4)}{n(n-1)\cdots(n-2t+6)(n-2t+5)} \leqq \frac{(t+\varepsilon)!}{\varepsilon!}$$

where $0 \leqq \varepsilon \leqq t-3$, is found as before, and from it the theorem follows.

3.

Another theorem of value in the applications is the following :

THEOREM IV. *A doubly transitive group cannot contain an invariant imprimitive subgroup unless its degree is a power of a prime. Then the group is a subgroup of the holomorph of the abelian group of order* p^α *and type* $(1, 1, \cdots)$.

On pages 193 and 194 of his Theory of Groups Burnside proves that the invariant imprimitive subgroup H is of degree n and class $n-1$ and that the $n-1$ substitutions of degree n in H form a single conjugate set under G. Then by Frobenius's theorem on groups of "class $n-1$," H contains a characteristic subgroup of degree and order n which is abelian with all its operators of the same order.

STANFORD UNIVERSITY,
June 19, 1906.

DIFFERENTIAL GEOMETRY OF n DIMENSIONAL SPACE.

Sur les Systèmes Triplement Indéterminés et sur les Systèmes Triple-Orthogonaux. Par C. GUICHARD. Scientia, no. 25. Gauthier-Villars, Paris, 1905. viii + 95 pp.

DURING the past ten years the field of differential geometry has been greatly enriched by the researches of M. Guichard. The eminent geometer has made a profound study of the properties of ordinary space by means of operations defined for space of n dimensions. He has introduced two elements depending upon two variables ; they are the *reseau* and the *congruence*. By definition, a point of space in n dimensions