

P. 268, Ex. 7, change the last clause to "determine the two lines of striction."

P. 278, line 8, insert after "equations" the phrase "and §§ 77, 82."

P. 280, line 10, after "values" insert "(cf. §§ 77, 82)."

P. 313, in the expression for  $\zeta$  change + before  $(u^2 - \frac{1}{2})$  to -.

P. 400, line 9, change  $\omega_1, \omega_2$  to  $\omega_1 + \frac{\pi}{2}, \omega_2 + \frac{\pi}{2}$ .

P. 412, Ex. 6, change + before  $ds_1$  to -.

P. 418, line 19, remove the sign  $\Sigma$  after  $m^2$ .

P. 423, Ex. 9, in the equation change  $\lambda$  to  $\lambda^2$ .

P. 441, line 27, after "zero" insert "in fact  $L$  vanishes identically."

P. 444, Ex. 15, in last term of the equation change + to - and  $p$  to  $p_1$ .

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#### NOTE ON COLLINEATION GROUPS.

SINCE the publication of my paper on collineation groups in the *Transactions* (volume 12, No. 2, April, 1911) my attention has been called to a similarity which exists between my determination of the collineation groups in the ordinary plane and that given by Valentiner ("De endelige transformations-grupper theori," *Videnskabselskabets Skrifter*, 6 Raekka, Copenhagen, 1889).

The general outlines of the first parts of the two papers are the same, as in both the groups which contain homologies of higher period than 2 are first discussed. A determination of those groups leaving a line invariant which must contain an homology of period 2 having that line for axis is given in both papers. The proofs that no group can contain homologies of higher period than 5 or homologies of period 5 are essentially the same. The proofs that no group can contain homologies of period 4 are somewhat different. Valentiner's discussion of groups containing homologies of period 3 is inaccurate and as a consequence he overlooks the existence of the  $G_{216}$ , although he considers the possibility of a group of this order.

The rest of the discussion is in the main quite different. I proved a theorem concerning the order of abelian groups contained by non-abelian groups of three times their order which is similar to his, but made no use of it in the determination of the groups in the ordinary plane. He arrived at the  $G_{168}$  and the  $G_{360}$  as the result of the solution of a diophantine equation (the same, in fact, as was used by Jordan in his attack on the problem, *Crelle*, 1878), whereas I arrived at them from the consideration of groups which left conics invariant. I however made use of a special type of this equation in two or three places.

H. H. MITCHELL.

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NOTES.

THE annual meeting of the AMERICAN MATHEMATICAL SOCIETY will be held in New York on December 27-28. The winter meeting of the Chicago Section will be held at the University of Chicago on December 29-30. Titles and abstracts of papers to be presented at these meetings should be in the hands of the respective secretaries by December 9. Abstracts intended to be printed in advance of the meeting should be sent in as early as possible.

THE Annual Register of the Society is now in preparation and will be issued in January. Blanks for furnishing necessary information have been sent to the members. Early notice of any changes since the issue of the last Register will greatly facilitate the work of the Secretary. The Register is widely circulated and it is desirable that the information which it contains should be accurate and reliable.

THE concluding (October) number of volume 12 of the *Transactions of the American Mathematical Society* contains the following papers: "On the limit of the degree of primitive groups," by W. A. MANNING; "Isomorphisms of a group whose order is a power of a prime," by G. A. MILLER; "On minimal lines and congruences in four-dimensional space," by J. EIESLAND; "Volterra's integral equation of the second kind, with discontinuous kernel. Second paper," by G. C. EVANS; "One-parameter families and nets of plane curves," by E. J. WILCZYNSKI; Notes and errata, volumes 10 and 11.