Schlaefli's theorem that every Riemannian space of n dimensions can be immersed in Euclidean space of $n(n+1)/2$ dimensions is discussed in great detail (pp. 199–210) for the particular case $n=3$ and reference is made to the proofs of Janet and Cartan for the general n. In this connection, it might be remarked that the detailed discussion given by Janet (Annales de la Société Polonaise de Mathématique vol. 5 (1926) pp. 39–40) for the case $n=2$ is convincing, whereas the counter-example given for the same case by Forsyth (*Intrinsic geometry of ideal space*, vol. 1, pp. 231–233) is not. A relatively simple proof of the theorem would be highly desirable. Cartan's discussion of the case $n=3$ may help in that direction.

J. M. THOMAS

Tables of fractional powers. Prepared by Mathematical Tables Project, National Bureau of Standards. New York, Columbia University Press, 1946. 489+30 pp. $7.50.

The tables here printed yield the values of A^x and x^a. For example, there are tables of A^x for $A=10, \pi, 10^{-3}P$ (where P is a prime between 100 and 1000), as well as for other values. Thus 10^x is given to 15 decimals for $0.001 \leqq x \leqq 1.000$ with x advancing in intervals of .001. The function x^a is computed for the values $a=\pm 1/2, \pm 1/3, \pm 2/3, \pm 1/4$ with $0 \leqq x \leqq 9.99$ in intervals of .01. There is a bibliography with 76 titles and an introduction by Dr. Lowan in which the method of computation of the tables is explained and the accuracy of interpolation is illustrated by examples.

E. R. LORCH

Tables of the modified Hankel functions of order one-third and of their derivatives. Cambridge, Harvard University Press; London, Oxford University Press, 1945. 36+235 pp. $10.00.

This set of tables is the first to be published by the Computation Laboratory of Harvard University. The functions here considered are solutions of Stokes' differential equation $d^2u/dz^2+zu=0$ and were needed in connection with the work of the Radiation Laboratory on diffraction and refraction of waves. Solutions to Stokes' equation are $h_1(z)=(k/i\pi)\int_{L_1}e^{zt+t^3/3}dt$ (where k is a constant and L_1 is an infinite broken line in the complex plane) and $h_2(z)$, which has a similar expression. It is the functions $h_i(z)$ and their derivatives $h_i'(z)$ which are tabulated. The tables give the real and imaginary parts to eight decimal places for $z=x+iy$ with $|x+iy| \leqq 6$ and x, y progressing in intervals of 0.1. The functions $h_i(z)$ are related to the Hankel functions of order 1/3 by the equations $h_i(z)=((2/3)z^{3/2})^{1/3}H_{1/3}^{(i)}((2/3)z^{3/2})$,