$$p_n(x) = \frac{1}{w(x)} \frac{d^n}{dx^n} [w(x)X^n]$$

holds, where the function $w$ and the polynomial $X$ are independent of $n$. The differential equations satisfied by the classical orthogonal polynomials follow.

In Chapter V the properties of the classical orthogonal polynomials on finite intervals are developed. There is some introductory work on the gamma function, on hypergeometric functions, and on confluent hypergeometric functions. Then follow the properties of Jacobi, ultraspherical, Chebychev, and Legendre polynomials. In connection with the latter, Legendre functions are discussed also for general values of the parameters. The detailed study, both in this chapter and in Chapter VI, of the analytic behaviour of the classical orthogonal polynomials, in particular of their zeros and their asymptotic behaviour, may be especially noted here.

In Chapter VI, the classical orthogonal polynomials for unbounded intervals, that is the Laguerre and Hermite polynomials are presented, the presentation including a proof of the completeness of these polynomial systems. The book concludes with a discussion of the convergence properties of expansions in classical orthogonal polynomials.

Throughout the work examples enliven the presentation, and at the end there is a very useful table of the various constants associated with the classical orthogonal polynomials as well as a bibliography. All in all a worthy addition to the series of books written by the author—and also to the "yellow series."

A. ERDÉLYI

*Special relativity.* By W. Rindler. Oliver and Boyd and Interscience Publishers, Inc., 1960. 10+186 pp. $2.25.

This small book gives an excellent, clear, and concise account of special relativity. There is a sound balance between physical ideas, analytical formulae, and space-time geometry. In a short treatment the author cannot satisfy all tastes and must make a selection of topics. The reviewer would have preferred a greater emphasis on space-time geometry, but this is a matter of personal predilection. He is in complete agreement with the choice of topics. These are perhaps best indicated by enumerating the chapter headings: 1. the special principle of relativity; 2. relativistic kinematics; 3. relativistic optics; 4. space-time; 5. relativistic mechanics of mass points; 6. relativistic