order of $f(z)$ on $|z| = R$ is $\omega' > \omega$, there either exist at least two points of order ω' on this circle or the singularity of order ω' is non-Fuchsian. By means of an extension of Mandelbrojt's method for finding the singularities of an analytic function on its circle of convergence, the theorem gives a formula for the order of every pole lying outside of the convex hull of non-polar singularities of $f(z)$, and for the order of every Fuchsian singularity on the boundary V of the convex hull, provided the singularity is not an interior point of a straight-line segment of V. (Received April 12, 1943.)

190. Harry Pollard: *A new criterion for completely monotonic functions.*

The Bernstein criterion for completely monotonic functions states that if (i) $f(0+)$ exists and (ii) $(-1)^k \Delta_\delta^k f(x) \geqq 0$ for $k \geqq 0$, $\delta > 0$, $x > 0$, then $f(x)$ is completely monotonic in $0 \leqq x < \infty$. It is established in this paper that (ii) can be weakened to $(-1)^k \Delta_{\delta_k}^k f(x) \geqq 0$ for a suitable sequence $\{\delta_k\}$. (Received April 10, 1943.)

191. W. J. Thron: *A general theorem on convergence regions for continued fractions $b_0 + K(1/b_n)$.*

Let the regions B_0 and B_1 be defined by: $r \cdot e^{i\theta} \in B_0$ if $r > (1+\epsilon) \cdot f(\theta)$, $r \cdot e^{i\theta} \in B_1$ if $r > (1+\epsilon) g(\theta)$, where ϵ is an arbitrary small positive number and the functions $f(\theta)$ and $g(\theta)$ are positive in the interval $[0, 2\pi]$. If it is required that the complements of the regions B_0 and B_1 be both convex and if $f(\theta) \cdot g(\pi - \theta) \geqq 4$, then the continued fraction $b_0 + K(1/b_n)$ converges if $b_{2n} \in B_0$ and $b_{2n+1} \in B_1$, that is B_0 and B_1 are twin convergence regions for the continued fraction. The condition $f(\theta) g(\pi - \theta) \geqq 4$ is a necessary condition for two regions to be twin convergence regions. (Received April 19, 1943.)

192. W. J. Thron: *Convergence regions for the general continued fraction.*

It is shown that the continued fraction $K(a_n/b_n)$ converges if all $a_n = r \cdot e^{i\theta}$ lie in a bounded part of the parabola $r \leqq a^2/2(1 - \cos(\theta - 2\gamma))$, and if all b_n lie in the half-plane $R(b_n e^{i\gamma}) \geqq a + \epsilon$. Here $a > 0$ and ϵ is an arbitrary small positive number. (Received April 24, 1943.)

193. Hassler Whitney: *On the extension of differentiable functions.*

Let A be a bounded closed set in Euclidean space E. Suppose that for some number ω any two points of A are joined by an arc in A of length not more than ω times their distance apart. Then any function of class C^m in A which, with derivatives through the mth order, is sufficiently small in A, may be extended throughout E so as to be small, with its derivatives. (Received May 11, 1943.)

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194. T. C. Doyle: *Tensor theory of invariants for the projective differential geometry of a curved surface.*

This paper completes the explicit determination of differential invariants of all orders for a curved two dimensional surface begun by E. J. Wilczynski, *Projective differential geometry of curved surfaces (fourth memoir)*, Trans. Amer. Math. Soc. vol. 10 (1909) pp. 176–200. The Lie theory of groups serves to determine the number of exist-