

## Asymptotic formulæ in combinatory analysis

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A preliminary account of some of the contents of this paper\* appeared in the *Comptes Rendus* of January 2nd, 1917. The paper contains a full discussion and proof of the results there stated. The asymptotic formula for  $p(n)$ , the number of unrestricted partitions of  $n$ , of which only the first three terms were given, is completed; and it is shewn that, by taking a number of terms of order  $\sqrt{n}$ , the *exact* value of  $p(n)$  can be obtained for all sufficiently large values of  $n$ . Some account is also given of actual or possible applications of the method used to other problems in Combinatory Analysis or the Analytic Theory of Numbers.

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