6. *The Universal Theorem.* We add d and f each three times, 7^9 twice, and n^9 ($n=8$–$13, 15$) each once, as in Theorem 10, this Bulletin (vol. 39 (1930), p. 710), and find that 140 powers suffice from h to $L_0=58221534000$. By Theorem 12, ibid., page 711, with $t=841$, we find that 981 powers suffice from h to L_t, where $\log\log L_t=43.356$. By R. D. James' recent work for odd powers, every integer $>C$ is a sum of 981 ninth powers if $\log\log C=43.198$. Since $L_t>C$, we have the following result.

THEOREM 3. *All integers* $\geqq 2d+f$ *are sums of* 981 *ninth powers.*

By (1_1) the integers $\geqq 0$ and $<b$ are $x+ya$ ($x\leqq 511$, $y\leqq 37$) and $z+38a$ ($z\leqq 226$), and hence are sums of 548 powers. Adding b thirteen times, we see that 561 suffice to $14b$ and hence beyond c. Adding c seven times, we see that 568 suffice to $8c>d$. Adding d five times, we see that 573 suffice to $6d>f$. Hence 575 suffice to $2d+f$.

THEOREM 4. *Every positive integer is a sum of* 981 *ninth powers.*

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A NOTE

BY R. L. PEEK, JR.

M. Maurice Fréchet, of the University of Paris, has informed me that Cantelli published the following inequality in the Bollettino dell' Associazione degli Attuari Italiani (Milan, 1910):

$$P_{|X-Y|} \geqq \epsilon \geqq \frac{M_{2r} - M_r^2}{(\epsilon^r - M_r)^2 + M_{2r} - M_r^{\,r}},$$

where M_r is the mean of $|X-Y|^r$. As Fréchet pointed out in his letter to me, this inequality includes as a particular case ($Y=\overline{X}$, $\epsilon=t\sigma$, $r=1$) the inequality (2) given in my paper, *Some new theorems on limits of variation*, published in this Bulletin, December, 1933.

The journal in which Cantelli's paper appeared is not, so far as I have been able to ascertain, available in New York City.

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