CORRECTION AND ADDITION TO *SOME THEOREMS CONCERNING PARTITIONS*(1)

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Theorem 2 of the above mentioned paper is valid only provided that the set $\{a\}$ of smallest positive residues does not consist of the single element $a=q$. Indeed, if it is required that all summands of a partition be divisible by the prime q, then, clearly, $p_n(q)=p_n(q, l)=0$ for $n\not\equiv 0 \pmod q$, while, for $n=qn_1$, $p_{qn_1}=p_{n_1}(1)$ and $p_{qn_1}=p_{n_1}(1, l)$. Here $p_{n_1}(1)$ and $p_{n_1}(1, l)$ are the corresponding partitions without congruence restrictions; they may be obtained from the formulae of Theorem 2, by setting formally $m=q=1$. $p_n(1)$ is, of course, the number of unrestricted partitions and is well-known (see [2] and [10]). It is easy to see that this is actually the only case in which the statement of Theorem 2 needs a modification. Indeed, Theorem 2 is an immediate consequence of the lemma. The proof that conditions (b) and (c) of the lemma hold for the generating functions $F(x)$ and $H(x)$ does not depend on the set $\{a\}$. But the verification of condition (a) makes essential use of the fact that (see text on top of p. 124 and on p. 120, after (11)) $L/k^2\leqq t\Lambda$, with $t=\max_a B/q^2=1-6(q-1)/q^2<1$. In case $k=q=a$, however, $A=B=q^2$ and, if $m=1$, $\Lambda=\pi^2/6q$, $L=\pi^2 q/6$ so that $L/k^2=L/q^2=\Lambda>t\Lambda$. This simply reflects the fact, evident from $F_0(x)=\prod_{\nu=1}^{\infty}(1-x^{q\nu})^{-1}$, that if $x=\exp\{\log r+2\pi ih/q\}$, then $|F_0(x)|$ takes on the same value, for every integer h; the situation for $H(x)$ is similar. If, however, $m>1$, then $L=(\pi^2/6q)\sum_{a\in\{a\}}B \leqq(\pi^2/6q)[(m-1)tq^2+q^2]=\pi^2 mqt_1/6$, with $t_1=[(m-1)t+1]/m<1$ and the argument of the test goes through with $t_1<1$ instead of t.

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