# A THEOREM IN THE PARTITION CALCULUS CORRIGENDUM 

BY<br>P. ERDÖS AND E. C. MILNER

We are grateful to Dr. A. Kruse for drawing our attention to some misprints in [1], and also to a technical error in our deduction of (19) which we remedy below.
Misprints. 1. Page 502, last line. Replace $\omega^{12}$ by $\omega^{11}$.
2. Page 505 , equation (17). This should read:

$$
\begin{equation*}
g_{i}\left(g_{i+1}\left(\cdots\left(g_{j-1}\left(\gamma_{i}\right)\right) \cdots\right)\right)=\gamma_{i} \quad(i<j<\omega) \tag{17}
\end{equation*}
$$

3. Page 505 , line 3 . Replace (12) by (14).
4. Page 505 , line 4. The displayed formula should read

$$
\rho=g_{i}\left(g_{i+1}\left(\cdots g_{j-1}\left(\gamma_{j}\right)\right) \cdots\right)
$$

In order to make (19) correct we define $x_{n}, S^{(n)}(n<\omega)$ a little more carefully and replace lines 21-31 on Page 504 by the following:

Let $n<\omega$ and suppose that we have already chosen elements $x_{i} \in S(i<n)$ and a subset

$$
\begin{equation*}
S^{(n)}=\bigcup(v \in B) A_{v}^{(n)}(<) \tag{12}
\end{equation*}
$$

of $S$ of order type $\alpha \beta$ such that $S^{(n)} \subset K_{1}\left(\left\{x_{i}: i<n\right\}\right)$. If $\alpha \geq \alpha+\alpha$, then choose sets $A, A^{\prime} \subset A_{\gamma_{n}}^{(n)}$ such that $A<A^{\prime}$; if on the other hand $\alpha \nsupseteq \alpha+\alpha$, then put $A=A^{\prime}=A_{\gamma_{n}}^{(n)}$. In either case it is true that if $x \in A$ and $A_{1}^{\prime} \subset A^{\prime}$, then there is $A_{2}^{\prime} \subset$ $A_{1}$ such that $\{x\}<A_{2}^{\prime}$. With this remark in mind, it now follows from (10) that there are $x_{n} \in A$, a strictly increasing map $g_{n}: B \rightarrow B$ and sets $A_{v}^{(n+1)}(v \in B)$ such that

$$
\begin{gather*}
g_{n}\left(\gamma_{i}\right)=\gamma_{i} \quad(i \leq n),  \tag{13}\\
A_{v}^{(n+1)} \subset K_{1}\left(x_{n}\right) \cap A_{g_{n(v}}^{(n)} \quad(v \in B),  \tag{14}\\
\left\{x_{n}\right\}<A_{\gamma_{n}}^{(n+1)} \subset A^{\prime} . \tag{16}
\end{gather*}
$$

From the definition of $A$, we also have

$$
\begin{equation*}
x_{n} \in A_{\gamma n}^{(n)} \subset S^{(n)} . \tag{15}
\end{equation*}
$$

## Reference

1. P. Erdös and E. C. Milner, A theorem in the partition calculus, The Canadian Mathematical Bulletin, 15 (1972), 501-505.
