EXISTENCE AND UNIQUENESS OF GRPSTUCTREN
is a covering homomorphism (Corollary 3.13): In this way we generalize a previ-
$\square=\operatorname{card}_{\mathrm{B}_{\mathrm{n} 1}}=\operatorname{card}_{\mathrm{B}_{\mathrm{n}}}=\operatorname{cardf}^{1}\left(\mathrm{fy}^{0} \mathrm{~g}\right)$;
for f

Proof. Choose an arbitrary poin7

Suppose that ( $\square$ ) holds for V . For $\times 2 \mathrm{C}$, denote by $\mathrm{W}_{\mathrm{x}}$ an open neighborhood of $x$ such that $f j W$
respect to $V$ which starts in

points $z_{i ; j}=f\left(a_{i}\right) f(a)^{1} f\left(a_{j}\right) ; 0 \square i ; j \square$ m: Since $f\left(a_{i+1}\right) 2 f\left(a_{i}\right) V \backslash V f\left(a_{i}\right) ; 0 \square$ $\mathrm{i}<\mathrm{m}$; we get

$$
z_{i ; j+1}=f\left(a_{i}\right) f(a)^{1} f\left(a_{j+1}\right) 2 f\left(a_{i}\right) f(a)^{1} f\left(a_{j}\right) V
$$

of Lemma 3.6. Let $v_{i}=f\left(a_{i+1}\right) f\left(a_{i}\right)^{1}$ and $w_{j}=f(b)^{1} f\left(b_{+1}\right)$ be from Claim 1. Then, $v_{i} ; w_{j} 2 \mathrm{~V}$ and we see that $\mathrm{f}(\mathrm{g}) \mathrm{f}(\mathrm{aj})$

Since in each topological group the group operation and taking inverse are con-

