NOTES ON TRANSLATIONS OF A SEMIGROUP

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In the present paper we shall correct mistakes and incompleteness in the previous paper [1], and shall discuss the results again and develop them. Further the main purpose of this paper is to investigate the structure of a semigroup whose right translation semigroup is a group or a semilattice. We express many thanks to Prof. G. B. Preston and Mr. Kaichiro Fujiwara for their kind advice and their pointing out our mistakes. We shall retain the notations in the previous paper.

1. Corrections and Addenda.

1. Corrections to the theorems of the previous paper.

In Theorems 4, 4′ of the paper [1] pp. 68–69, *we assume S to satisfy* $S^2=S$. Read "*isomorphic*" for "*homomorphic*", line 15, right, from the bottom, p. 68, and line 4, left, p. 69.

We devide the theorems into two cases and describe them again.

THEOREM $\bar{4}$. ($\bar{4}'$.) *The conditions* (2) and (3) *are equivalent, and* (2′) *and* (3′) *are equivalent.* (*We may provide no condition for S.*)

(2) *S contains a right unit,* (3) $\Phi=R$;

(2′) *S contains a left unit,* (3′) $\Psi=L$.

THEOREM 4. (4′.) *Let S be a semigroup which satisfies* $S^2=S$. *The conditions* (1) *and* (2) *are equivalent,* (1′) *and* (2′) *are equivalent.*

(1) *Φ is isomorphic to R,* (2) *S contains a right unit;*

(1′) *Ψ is isomorphic to L,* (2′) *S contains a left unit.*

Theorem 5 is valid for S having no condition. We shall rewrite the theorem:

THEOREM 5. *$\Phi(\Psi)$ is dually isomorphic* (*isomorphic*) *to S if and only if S has a two-sided unit.*

In its proof, line 14, left, p. 69, read "*dually isomorphic*" for "*isomorphic*".

The converse of Theorem 9 is not generally true. In Theorem 9, line 7,

Received April 5, 1957; in revised form October 2, 1957.