

Namely, it is evident that

$$(17) \quad \Leftrightarrow \text{,,}\cdot\text{'' l. c. ,,}+^* \text{''}; \quad (18) \quad \Leftrightarrow \text{,,}\cdot\text{'' l. a. ,,}+^* \text{''};$$

$$(19) \quad \Leftrightarrow \text{,,}\cdot^* \text{'' l. c. ,,}+ \text{''}; \quad (20) \quad \Leftrightarrow \text{,,}\cdot^* \text{'' l. c. ,,}+^* \text{''};$$

$$(21) \quad \Leftrightarrow \text{,,}\cdot\text{'' c. ,,}+^* \text{''}.$$

C. With the identities:

$$(22) \quad (\forall u, v, x, y) \quad x + yz = (x + y)(y + z)$$

$$(23) \quad \quad \quad = xy + z$$

$$(24) \quad (u + v)(x + y) = xu + vy$$

$$(25) \quad \quad \quad = vu + xy,$$

are defined four new relations.

Let (S, \cdot) be a group. We have:

$$(22) \quad \Leftrightarrow \{ (\exists \varphi) (\forall x, y) \quad x + y = \varphi(y), \quad \varphi(xy) = \varphi(x)\varphi(y) \};$$

$$(23) \quad \Leftrightarrow \{ (\exists \varphi) (\forall x, y) \quad x + y = \varphi(xy) \};$$

$$(24) \quad \Leftrightarrow \{ (\forall x, y) \quad x + y = y + x, \quad \text{,,}\cdot\text{'' s. ,,}+ \text{''} \};$$

$$(25) \quad \Leftrightarrow \{ (\forall x, y) \quad x + y = y + x, \quad \text{,,}\cdot\text{'' c. ,,}+ \text{''} \}.$$