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Therefore ${}_pJ$ is a partial left ideal of $P(F^+ \times F^+, \otimes)$.

Theorem 1.3. proves that S_p is a subsemigroup of the partial semigroup $P(F^+ \times F^+, \otimes)$.

It is easy to see, that

$$J_p \cap {}_pJ = S_p.$$

We conclude that $J_p \cap {}_pJ$ is a subsemigroup of $P(F^+ \times F^+, \otimes)$.

Denote $\mathfrak{H}_r$, $(\varepsilon \neq p \in F^+)$ the set of all J_p.

It can be seen immediately that for the elements $J_p, J_q \in \mathfrak{H}_r$ we have

$$J_p \cap J_q = J_{pq(p\Delta q)^{-1}}.$$

Therefore $\mathfrak{L}_r = (\mathfrak{H}_r, \cap)$ is a semilattice.

Denote $\mathfrak{H}_l$, $(\varepsilon \neq p \in F^+)$ the set of all ${}_pJ$.

It can be seen immediately that for the elements ${}_pJ, {}_qJ \in \mathfrak{H}_l$ we have

$${}_pJ \cap {}_qJ = {}_{pq(p\Delta q)^{-1}}J.$$

Therefore $\mathfrak{L}_l = (\mathfrak{H}_l, \cap)$ is a semilattice.

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