Theorem 1. Suppose (P, w) contains (Q, w') as a convex subposet. If (Q, w') has multiplicity, then so does (P, w).

Proof. Let $L_{(Q,w')}$ be the set of all linear extensions of (Q, w').
Since (Q, w') has multiplicity, there exist $l_1, l_2 \in L_{(Q,w')}$ such that they have the same F function.
Case 1: Every labeled node in (P, w) belongs in (Q, w') and thus, $(P, w) = (Q, w')$. Hence, $l_1, l_2 \in L_{(P,w)}$ and (P, w) has multiplicity.
Case 2: There exists labeled node(s) in (P, w) that don't belong in (Q, w').

$\square$