Q-R-pre-preserving-compose[11,40]

$\forall es$:ES, P_1, P_2:(E$\rightarrow \mathbb{P}$), Q_1, Q_2, Q_3:(E$\rightarrow$E$\rightarrow \mathbb{P}$), f_1:($\{e$:E$|\ P_1(e)\} \rightarrow \{e$:E$|\ P_2(e)\}$),
f_2:($\{e$:E$|\ P_2(e)\} \rightarrow$E).
f_1 is Q_2-Q_3-pre-preserving on P_1
$\Rightarrow$ f_2 is Q_1-Q_2-pre-preserving on P_2
$\Rightarrow$ f_2 o f_1 is Q_1-Q_3-pre-preserving on P_1

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http://www.nuprl.org/FDLcontent/p0_963683_/p29_377961_{Q-R-pre-preserving-compose}.html