

$$P_2(\{(P, i_1), (P', i_2), (P', i_3), (P, i_4)\} : \forall i_1, i_2, i_3, i_4 \in \{I, I'\}\} \cap \{(x_1, I), (x_2, I) : \forall x_1, x_2 \in \{P, P'\}\})$$


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$$P_2(\{(x_1, I), (x_2, I)\} : \forall x_1, x_2 \in \{P, P'\}\})$$