There are some people in a bar. Formalize and prove the statement “There's a person in the bar such that, if that person drinks, then everyone in the bar drinks.”.

Let \( \text{people} \) be the people in the bar, and let \( \text{drinks} \) be a predicate over \( \text{people} \).

\[
\exists p: \text{people} \cdot (\text{drinks } p) \Rightarrow (\forall q: \text{people} \cdot (\text{drinks } q))
\]

antidistributive law

\[
= (\forall p: \text{people} \cdot (\text{drinks } p)) \Rightarrow (\forall q: \text{people} \cdot (\text{drinks } q))
\]

rename, and reflexive law

\[
= \top
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