

“For every car, there is a driver who, if (s)he can start it, then (s)he can stop it.”

can be formalized in a suitable language as

$$\forall x(\text{Car}(x) \rightarrow \exists y(\text{Driver}(y) \wedge (\text{Start}(x, y) \rightarrow \text{Stop}(x, y)))).$$

Now, we negate:

$$\begin{aligned} & \neg \forall x(\text{Car}(x) \rightarrow \exists y(\text{Driver}(y) \wedge (\text{Start}(x, y) \rightarrow \text{Stop}(x, y)))) \\ & \equiv \exists x \neg(\text{Car}(x) \rightarrow \exists y(\text{Driver}(y) \wedge (\text{Start}(x, y) \rightarrow \text{Stop}(x, y)))) \\ & \equiv \exists x(\text{Car}(x) \wedge \neg \exists y(\text{Driver}(y) \wedge (\text{Start}(x, y) \rightarrow \text{Stop}(x, y)))) \\ & \equiv \exists x(\text{Car}(x) \wedge \forall y \neg(\text{Driver}(y) \wedge (\text{Start}(x, y) \rightarrow \text{Stop}(x, y)))) \\ & \equiv \exists x(\text{Car}(x) \wedge \forall y(\neg \text{Driver}(y) \vee \neg(\text{Start}(x, y) \rightarrow \text{Stop}(x, y)))) \\ & \equiv \exists x(\text{Car}(x) \wedge \forall y(\neg \text{Driver}(y) \vee (\text{Start}(x, y) \wedge \neg \text{Stop}(x, y)))). \end{aligned}$$

Since $\neg A \vee B \equiv A \rightarrow B$, the last formula is equivalent to

$$\exists x(\text{Car}(x) \wedge \forall y(\text{Driver}(y) \rightarrow (\text{Start}(x, y) \wedge \neg \text{Stop}(x, y)))).$$

Thus, the negation of the sentence above is equivalent to:

“There is a car such that every driver can start it and cannot stop it.”