

Put the following formula in prenex form. Use capital letters when renaming variables. Show details of your work:

$$\forall u (u < y) \rightarrow \exists y \forall z [\neg (u + y < w + z) \rightarrow \neg \exists w (w \cdot y < w \cdot z)]$$

Answer:

DETAILS

Convert the following argument into a set \mathcal{C} of clauses such that the argument is valid iff the set \mathcal{C} is not satisfiable. Use capital letters when changing the names of variables. Show details of your work.

$$\forall x \left(\exists y (x \cdot y < x) \rightarrow \exists z ((y \cdot z < x) \wedge \neg (y \cdot x < z)) \right) \quad \therefore \exists x \forall y (x \cdot y < y)$$

Answer:

DETAILS: