## Answer on Question \#79828 - Math - Discrete Mathematics

## Question

$$
(p \rightarrow(q \wedge r)) \wedge(\neg p \rightarrow(\neg q \wedge \neg r))
$$

## Solution

| $p$ | $q$ | $r$ | $q \wedge r$ | $p \rightarrow(q \wedge r)$ | $\neg p$ | $\neg q$ | $\neg r$ | $\neg q \wedge \neg r$ | $\neg p \rightarrow(\neg q \wedge \neg r)$ | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T | T | T | T | T | F | F | F | F | T | T |
| T | T | F | F | F | F | F | T | F | T | F |
| T | F | T | F | F | F | T | F | F | T | F |
| T | F | F | F | F | F | T | T | T | T | F |
| F | T | T | T | T | T | F | F | F | F | F |
| F | T | F | F | T | T | F | T | F | F | F |
| F | F | T | F | T | T | T | F | F | F | F |
| F | F | F | F | T | T | T | T | T | T | T |

The truth table was given, it is not a tautology.

