

Invalid

$S \rightarrow P$

T

F

F

$Q \rightarrow (R \vee S)$

T

F

T

F

$\therefore \neg P \rightarrow (Q \wedge R)$

T

F

F

T

P	Q	R	S
F	F	T F	F
			F F

Construct a shortened truth-table that demonstrates that the following sentence is not a contradiction.

$$\begin{array}{ccccccc} & T & T & F & & T & F \\ (W \leftrightarrow \sim(Q \vee P)) \wedge \sim(W \rightarrow Q) & & & & & & \\ T & & F & F & & T & F \end{array}$$

P	Q	W
F	F	T