

Quiz 3

Name: Key*You must show your work to get full credit.*

1. Make a truth table for
- $\neg(P \wedge \neg Q)$
- .

P	Q	$\neg Q$	$P \wedge \neg Q$	$\neg(P \wedge \neg Q)$
T	T	F	F	T
T	F	T	T	F
F	T	F	F	T
F	F	T	F	T

2. Make a truth table for
- $P \rightarrow Q$
- .

P	Q	$P \rightarrow Q$
T	T	T
T	F	F
F	T	T
F	F	T

3. Are
- $\neg(P \wedge \neg Q)$
- and
- $P \rightarrow Q$
- logically equivalent? Explain your answer.

Yes, as they have the same values for all choices of the values of P, Q

or

Yes, as they have the same truth tables.