3. p $\rightarrow$ q and $\neg$q $\rightarrow$ $\neg$p

p	q	$p \rightarrow q$	$\neg q$	$\neg p$	$\neg q \rightarrow \neg p$
T	T	T	F	F	T
T	F	F	T	F	F
F	T	T	F	T	T
F	F	T	T	T	T

As we can see, for all 4 cases these two expressions have the same results. Therefore, they are equivalent.

4. p $\rightarrow$ q and $\neg$p $\vee$ q

p	q	$p \rightarrow q$	$\neg p$	$\neg p \vee q$
T	T	T	F	T
T	F	F	F	F
F	T	T	T	T
F	F	T	T	T

As we can see, for all 4 cases these two expressions have the same results. Therefore, they are equivalent.

5. $\neg$ (p $\wedge$ q) and $\neg$p $\vee$ $\neg$q

p	q	$\neg p$	$\neg q$	$p \wedge q$	$\neg(p \wedge q)$	$\neg p \vee \neg q$
T	T	F	F	T	F	F
T	F	F	T	F	T	T
F	T	T	F	F	T	T
F	F	T	T	F	T	T

As we can see, for all 4 cases these two expressions have the same results. Therefore, they are equivalent.