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Delete exercise

Goal: write a derivation.

Exercise completed by derivation.

Remove last line

Clear

1	Show $\neg(P \wedge Q) \leftrightarrow (\neg P \vee \neg Q)$	
2	Show $\neg(P \wedge Q) \rightarrow (\neg P \vee \neg Q)$	
3	$\neg(P \wedge Q)$	ass cd
4	Show $\neg P \vee \neg Q$	
5	$\neg(\neg P \vee \neg Q)$	ass id
6	Show $P \wedge Q$	
7	Show P	
8	$\neg P$	ass id
9	$\neg P \vee \neg Q$	8, add
10	$\neg(\neg P \vee \neg Q)$	5, r
11		9, 10, id
12	Show Q	
13	$\neg Q$	ass id
14	$\neg P \vee \neg Q$	13, add
15	$\neg(\neg P \vee \neg Q)$	5, r
16		14, 15, id
17	$P \wedge Q$	7, 12, adj
18		17, dd
19	$\neg(P \wedge Q)$	3, r

20		6 , 19 , <u>id</u>
21		4 , <u>cd</u>
22	▼ Show $(\neg P \vee \neg Q) \rightarrow \neg(P \wedge Q)$	
23	$\neg P \vee \neg Q$	<u>ass cd</u>
24	▼ Show $\neg(P \wedge Q)$	
25	$P \wedge Q$	<u>ass id</u>
26	P	25 , <u>s</u>
27	$\neg\neg P$	26 , <u>dn</u>
28	$\neg Q$	27 , 23 , <u>mtp</u>
29	Q	25 , <u>s</u>
30		28 , 29 , <u>id</u>
31		24 , <u>cd</u>
32	$\neg(P \wedge Q) \leftrightarrow (\neg P \vee \neg Q)$	2 , 22 , <u>cb</u>
33		32 , <u>dd</u>