Inference at $*$ 1
of proof for Lemma decidable_or:

1. $P : \mathbb{P}$
2. $Q : \mathbb{P}$
3. $P \vee (\neg P)$
4. $Q \vee (\neg Q)$

$\vdash (P \vee Q) \vee (\neg(P \vee Q))$
by ((D 3)
CollapseTHEN (D 4))·

1:

3. P
4. Q
$\vdash (P \vee Q) \vee (\neg(P \vee Q))$

2:

3. P
4. $\neg Q$
$\vdash (P \vee Q) \vee (\neg(P \vee Q))$

3:

3. $\neg P$
4. Q
$\vdash (P \vee Q) \vee (\neg(P \vee Q))$

4:

3. $\neg P$
4. $\neg Q$
$\vdash (P \vee Q) \vee (\neg(P \vee Q))$

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