Inference at $*$ 1 3
 of proof for Lemma decidable_and:

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

$\vdash (P \ \& \ Q) \vee (\neg(P \ \& \ Q))$

```
  by InteriorProof ((((DNth 2 0)
  CollapseTHENM (D 0))·)
  CollapseTHEN (
                    (Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n)) (first_tok
                    :t) inil_term)))·

    .
```

http://www.nuprl.org/FDLcontent/p0_942988_/p121_103248_{decidable__and}1_3.html