

Inference at \*  
of proof for Lemma p-compose' \_wf:

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⊢∀A, B, C:Type, g:(A→(B + Top)), f:(A→B→C). f o' g ∈ A→(C + Top)
by (Auto·)
CollapseTHEN ((Unfold 'p-compose\' ( 0)·)
CollapseTHEN ((
  (if (((first_nat 2:n)) = 0) then (Repeat (MaAutoStep)) else (RepeatFor (first_nat 2:n) (
    MaAutoStep))))·)
CollapseTHEN ((Try ((Complete (Auto·))·)·)·)·
```

1:

1.  $A : \text{Type}$
  2.  $B : \text{Type}$
  3.  $C : \text{Type}$
  4.  $g : A \rightarrow (B + \text{Top})$
  5.  $A \rightarrow B \rightarrow C$
  6.  $x : A$
  7.  $\neg(\uparrow \text{can-apply}(g;x))$
- ⊢  $g(x) \in (C + \text{Top})$