```
depthfirst_paren  THM

⊢  For any graph
   ∀the_obj:GraphObject(the_graph).
   paren(V;depthfirst(the_obj)) & no_repeats(V+V;depthfirst(the_obj))
  by (RepeatFor 2 (Analyze 0))
     THEN
     (Inst Thm: depthfirst_induction2 [the_graph;the_obj;λ₂s. True])
END
```