```
simp_rec_exists  THM

⊢  ∀'a:S, x:'a, f:('a→'a), n:ℕ. ∃fun:(ℕ→'a). simp_rec_rel(fun,x,f,n)
  by RewriteOfThm
     Thm* ∀'a:S.
          all
          (λx:'a. all
                  (λf:'a → 'a. all
                               (λn:hnum. exists
                                         (λfun:hnum
                                          → 'a. simp_rec_rel
                                                (fun
                                                ,x
                                                ,f
                                                ,n)))))
     {hsimp_rec_exists}
     (SimpsetC [‘hol_to_nuprl‘;‘bequal‘])
END
```