```
da  THM

⊢  ∀k,n:ℕ. 0<n ⇒ (∃r,q:ℕ. k = q·n+r & r<n)
  by RewriteOfThm
     Thm* all
          (λk:hnum. all
                    (λn:hnum. implies
                              (lt(0,n)
                              ,exists
                               (λr:hnum. exists
                                         (λq:hnum. and
                                                   (equal
                                                    (k
                                                    ,add(mult(q,n),r))
                                                   ,lt(r,n)))))))
     {hda}
     (SimpsetC [‘hol_to_nuprl‘;‘bequal‘])
END
```