```
rem_base_case  THM

⊢  ∀a:ℕ, n:ℕ+. a<n ⇒ (a rem n) = a
| by Auto THEN ElaborateDivision Auto 0
|
1. a : ℕ
2. n : ℕ+
3. a<n
4. a = (a ÷ n)·n+(a rem n)
5. (a rem n) ∈ ℕn
⊢  (a rem n) = a
| by FwdThru:
|    Thm* ∀k:ℕ+, r1,r2:ℕk, q1,q2:ℤ.
|         q1·k+r1 = q2·k+r2 ⇒ q1 = q2 & r1 = r2
|    {division1_sfa}
|    on [ (a ÷ n)·n+(a rem n) = 0·n+a ]
|
6. (a ÷ n) = 0 & (a rem n) = a
⊢  (a rem n) = a  by Auto
END
```