```
div_2_to_1  THM

⊢  ∀a:{...0}, b:ℕ+. (a ÷ b) = -((-a) ÷ b)
| by Auto THEN ElaborateDivision Auto 0
|
1. a : {...0}
2. b : ℕ+
3. a = (a ÷ b)·b+(a rem b)
4. -a = ((-a) ÷ b)·b+((-a) rem b)
5. -(a rem b) ∈ ℕb
6. ((-a) rem b) ∈ ℕb
⊢  (a ÷ b) = -((-a) ÷ b)
  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) ÷ b)·b+((-a) rem b) = (-(a ÷ b))·b+-(a rem b) ]
END
```