```
increasing-implies2  THM

⊢  ∀n:ℕ, f:(ℕn→ℕ). increasing(f;n) ⇒ (∀i:ℕn, j:ℕi. f(j) ∈ ℕ(f(i)))
  by Auto
     THEN
     (FwdThru
      Thm* ∀k:ℕ, f:(ℕk→ℤ).
           increasing(f;k) ⇒ (∀x,y:ℕk. x<y ⇒ f(x)<f(y))
      {increasing_implies}
      [-3])
     THEN
     (InstHyp [j;i] -1)
END
```