```
upto_iseg  THM

⊢  ∀i,j:ℕ. i≤j ⇒ upto(i) ≤ upto(j)
  by Auto THEN Unfold ‘iseg‘ 0
     THEN
     Inst
     Thm* ∀m:ℕ, n:ℕ(m+1). upto(m) ~ (upto(n) @ map(λx.x+n;upto(m-n)))
     {upto_decomp}
     [j;i]
     THEN
     HypSubst -1 0
     THEN
     InstConcl [map(λx.x+i;upto(j-i))]
END
```