```
sum-ite  THM

⊢  ∀k:ℕ, f,g:(ℕk→ℤ), p:(ℕk→𝔹).
   sum(if p(i)→ f(i)+g(i) else f(i) fi | i < k)
   =
   sum(f(i) | i < k)+sum(if p(i)→ g(i) else 0 fi | i < k)  by SumInd
END
```