```
reduce_fac_pres_isprimefac  THM

⊢  ∀a,b:ℤ, f:({a..b⁻}→ℕ), j:{a..b⁻}.
|  0<f(j)
|  ⇒
|  is_prime_factorization(a; b; f)
|  ⇒
|  is_prime_factorization(a; b; reduce_factorization(f; j))  by Auto
|
1. a : ℤ
2. b : ℤ
3. f : {a..b⁻}→ℕ
4. j : {a..b⁻}
5. 0<f(j)
6. is_prime_factorization(a; b; f)
⊢  is_prime_factorization(a; b; reduce_factorization(f; j))
| by SimilarTo: Hyp:-1
|
6. i : {a..b⁻}
7. 0<reduce_factorization(f; j)(i)
⊢  0<f(i)
  by FwdThru:
     Thm*  ∀a,b:ℤ, f:({a..b⁻}→ℕ), j:{a..b⁻}.
           0<f(j) ⇒ (∀i:{a..b⁻}. reduce_factorization(f; j)(i)≤f(i))
     {reduce_factorization_bound}
     on [ 0<f(j) ]
     Using:[i]
END
```