```
rel_star_transitivity  THM

⊢  ∀T:Type, R:(T→T→Prop), x,y,z:T.
|  (x (R^*) y) ⇒ (y (R^*) z) ⇒ (x (R^*) z)
| by Unfold ‘rel_star‘ 0 THEN Reduce 0 THEN Auto THEN ExRepD

|    THEN InstConcl [n1+n] THEN Auto’
|
1. T : Type
2. R : T→T→Prop
3. x : T
4. y : T
5. z : T
6. n1 : ℕ
7. x R^n1 y
8. n : ℕ
9. y R^n z
⊢  x R^n1+n z
  by Using [‘y’,y] (BackThruLemma ‘rel_exp_add‘) THEN Auto
END
```