```
ndiff_ndiff  THM

⊢  ∀a,b:ℤ, c:ℕ. ((a -- b) -- c) = (a -- (b+c))
| by UnivCD THEN Unfold `ndiff` 0
|
1. a : ℤ
2. b : ℤ
3. c : ℕ
⊢  imax(imax(a-b;0)-c;0) = imax(a-(b+c);0)  by ArithSimp 0
|
⊢  imax(-c+imax(a+-b;0);0) = imax(a+-b+-c;0)
| by (RWN 1 (LemmaC Thm* ∀a,b:ℤ. a+b = b+a    {add_com}) 0)
|    THEN
|    (RWH
|     (LemmaC
|      Thm* ∀a,b,c:ℤ. imax(a;b)+c = imax(a+c;b+c)    {imax_add_r})
|     0)
|
⊢  imax(imax(a+-b+-c;0+-c);0) = imax(a+-b+-c;0)
| by RWH
|    (RevLemmaC
|     Thm* ∀a,b,c:ℤ. imax(a;imax(b;c)) = imax(imax(a;b);c)
|     {imax_assoc})
|    0
|
⊢  imax(a+-b+-c;imax(0+-c;0)) = imax(a+-b+-c;0)
| by RWN 2 (UnfoldTopC `imax`) 0 THEN SplitOnConclITE
|
|\
| .....truecase .....
| 4. 0+-c≤0
| ⊢  imax(a+-b+-c;0) = imax(a+-b+-c;0)  by Auto
|
.\
. .....falsecase .....
. 4. 0<0+-c
. ⊢  imax(a+-b+-c;0+-c) = imax(a+-b+-c;0)  by Assert (c = 0)
. |
. 5. c = 0
. ⊢  imax(a+-b+-c;0+-c) = imax(a+-b+-c;0)  by HypSubst 5 0
END
```