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0: N_1(x) /\ N_2(y) /\ N_3(s(z)) |- R_1(x,y) (N L.Unf.) [1,2]
1: N_2(y) /\ N_3(0) |- R_1(0,y) (R R.Unf.) [3]
3: N_2(y) /\ N_3(0) |- T (Id)
2: N_1(z) /\ N_2(y) /\ N_3(s(z)) |- R_1(s(z),y) (N L.Unf.) [4,5]
4: N_2(y) /\ N_3(s(0)) /\ N_4(0) |- R_1(s(0),y) (N L.Unf.) [6,7]
6: N_3(s(0)) /\ N_4(0) /\ N_5(0) |- R_1(s(0),0) (R R.Unf.) [8]
8: N_3(s(0)) /\ N_4(0) /\ N_5(0) |- R_1(0,0) (R R.Unf.) [10]
10: N_3(s(0)) /\ N_4(0) /\ N_5(0) |- T (Id)
7: N_2(z) /\ N_3(s(0)) /\ N_4(0) /\ N_5(s(z)) |- R_1(s(0),s(z)) (R R.Unf.) [9]
9: N_2(z) /\ N_3(s(0)) /\ N_4(0) /\ N_5(s(z)) |- R_1(s(s(0)),z) (N L.Unf.) [11,12]
11: s(0)=0 /\ N_2(z) /\ N_4(0) /\ N_5(s(z)) /\ N_6(s(0)) |- R_1(s(s(0)),z) (Ex Falso)
12: N_2(z) /\ N_3(0) /\ N_4(0) /\ N_5(s(z)) /\ N_6(s(0)) |- R_1(s(s(0)),z) (N Fold) [13]
13: N_2(z) /\ N_3(0) /\ N_4(0) /\ N_5(s(z)) /\ N_7(s(s(0))) |- R_1(s(s(0)),z) (Weaken) [14]
14: N_1(s(s(0))) /\ N_2(z) |- R_1(s(s(0)),z) (Subst) [15]
15: N_1(x) /\ N_2(y) |- R_1(x,y) (Back1) [0]
5: N_1(w) /\ N_2(y) /\ N_3(s(s(w))) /\ N_4(s(w)) |- R_1(s(s(w)),y) (N L.Unf.) [16,17]
16: N_1(w) /\ N_3(s(s(w))) /\ N_4(s(w)) /\ N_5(0) |- R_1(s(s(w)),0) (R R.Unf.) [18]
18: N_1(w) /\ N_3(s(s(w))) /\ N_4(s(w)) /\ N_5(0) |- R_1(s(w),0) (N L.Unf.) [20,21]
20: N_3(s(s(0))) /\ N_4(s(0)) /\ N_5(0) /\ N_6(0) |- R_1(s(0),0) (R R.Unf.) [22]
22: N_3(s(s(0))) /\ N_4(s(0)) /\ N_5(0) /\ N_6(0) |- R_1(0,0) (Weaken) [24]
24: N_3(s(0)) /\ N_4(0) /\ N_5(0) |- R_1(0,0) (Back1) [8]
21: N_1(y) /\ N_3(s(s(s(y)))) /\ N_4(s(s(y))) /\ N_5(0) /\ N_6(s(y)) |- R_1(s(s(y)),0) (R R.Unf.) [23]
23: N_1(y) /\ N_3(s(s(s(y)))) /\ N_4(s(s(y))) /\ N_5(0) /\ N_6(s(y)) |- R_1(s(y),0) (Weaken) [25]
25: N_1(y) /\ N_3(s(s(y))) /\ N_4(s(y)) /\ N_5(0) |- R_1(s(y),0) (Subst) [26]
26: N_1(w) /\ N_3(s(s(w))) /\ N_4(s(w)) /\ N_5(0) |- R_1(s(w),0) (Back1) [18]
17: N_1(w) /\ N_2(z) /\ N_3(s(s(w))) /\ N_4(s(w)) /\ N_5(s(z)) |- R_1(s(s(w)),s(z)) (R R.Unf.) [19]
19: N_1(w) /\ N_2(z) /\ N_3(s(s(w))) /\ N_4(s(w)) /\ N_5(s(z)) |- R_1(s(s(s(w))),z) (N L.Unf.) [27,28]
27: N_2(z) /\ N_3(s(s(0))) /\ N_4(s(0)) /\ N_5(s(z)) /\ N_6(0) |- R_1(s(s(s(0))),z) (N Fold) [29]
29: N_2(z) /\ N_4(s(0)) /\ N_5(s(z)) /\ N_6(0) /\ N_7(s(s(s(0)))) |- R_1(s(s(s(0))),z) (Weaken) [30]
30: N_1(s(s(s(0)))) /\ N_2(z) |- R_1(s(s(s(0))),z) (Subst) [31]
31: N_1(x) /\ N_2(y) |- R_1(x,y) (Back1) [0]
28: N_1(y) /\ N_2(z) /\ N_3(s(s(s(y)))) /\ N_4(s(s(y))) /\ N_5(s(z)) /\ N_6(s(y)) |- R_1(s(s(s(s(y))))z) (N Fold) [32]
32: N_1(y) /\ N_2(z) /\ N_4(s(s(y))) /\ N_5(s(z)) /\ N_6(s(y)) /\ N_7(s(s(s(s(y))))) |- R_1(s(s(s(s(y)))))z) (Weaken) [33]
33: N_1(s(s(s(s(y))))) /\ N_2(z) |- R_1(s(s(s(s(y)))))z) (Subst) [34]
34: N_1(x) /\ N_2(y) |- R_1(x,y) (Back1) [0]

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Miss !!!

Root list: 8, 18, 0

Measures proposed for the roots in cycles:

18: [1]

0: [2]

Checking the link of IAAs from buds to roots:

34 to 0: | 2 -> 2 [true] ==> true

31 to 0: | 2 -> 2 [true] ==> true

26 to 18: | 1 -> 1 [true] | 3 -> 4 [false] | 4 -> 1 [false] | 5 -> 5 [false] ==> true

15 to 0: | 2 -> 2 [true] ==> true

The proof has succeeded