

t1_topreal4
(TMQdxT7zSkJGgQUf9JZhuNHnA2WxZbreySL)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $r1_topreal4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_topreal1 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_topreal1 : \iota \Rightarrow o$ be given. Let $k3_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow ((v5_topreal1 X0) \Leftrightarrow (\exists X1.(m2_finseq_1 X1 (u1_struct_0 (k15_euclid np_2)))) \wedge ((v4_topreal1 X1) \wedge (X0 = k3_topreal1 np_2 X1)))) \quad (1)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow ((r1_topreal4 X0 X1 X2) \Leftrightarrow (\exists X3.(m2_finseq_1 X3 (u1_struct_0 (k15_euclid np_2)))) \wedge ((v4_topreal1 X3) \wedge ((X0 = k3_topreal1 np_2 X3) \wedge ((X1 = k7_partfun1 (u1_struct_0 (k15_euclid np_2)) X3 np_1) \wedge (X2 = k7_partfun1 (u1_struct_0 (k15_euclid np_2)) X3 (k3_finseq_1 X3)))))))) \quad (2)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow ((r1_topreal4 X0 X1 X2) \Rightarrow (v5_topreal1 X0))$$