

t43_rcomp_3

(TMGumHoKaVWaGG18LR1oafyx9VCJTrjJnbw)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. 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 $k4_topmetr : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $v2_connsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v6_xxreal_2 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_topmetr : \iota$ be given. Let $k2_topalg_2 : \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_pre_topc X1 X0) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \Rightarrow (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 \\ & (u1_struct_0 X1))) \Rightarrow ((X2 = X3) \Rightarrow ((v2_connsp_1 X2 X0) \Leftrightarrow (v2_connsp_1 \\ & X3 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$u1_struct_0 k3_topmetr = k1_numbers \tag{2}$$

Assume the following.

$$k2_topalg_2 = k3_topmetr \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow ((\neg \\ & v2_struct_0 (k4_topmetr X0 X1)) \wedge ((v1_pre_topc (k4_topmetr X0 \\ & X1)) \wedge (m1_pre_topc (k4_topmetr X0 X1) k3_topmetr))) \end{aligned} \tag{4}$$

Assume the following.

$$(v2_pre_topc k3_topmetr) \wedge (l1_pre_topc k3_topmetr) \tag{5}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 k2_topalg_2))) \Rightarrow \\ & (v6_xxreal_2 X0) \Rightarrow (v2_connsp_1 X0 k2_topalg_2) \end{aligned} \tag{6}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 k2_topalg_2))) \Rightarrow \quad (7)$$

$$((v2_connsp_1 X0 k2_topalg_2) \Rightarrow (v6_xreal_2 X0))$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2.$$

$$(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 (k4_topmetr X0 X1)))) \Rightarrow$$

$$(\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 k1_numbers)) \Rightarrow ((X2 =$$

$$X3) \Rightarrow ((v2_connsp_1 X2 (k4_topmetr X0 X1)) \Leftrightarrow (v6_xreal_2 X3))))))$$