

t20_scmring2 (TMbs- BmD4PAbfXfwAZG2bkkekDZebLRmX1T)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k1_scmring2 : \iota \Rightarrow \iota$ be given. Let $v2_extpro_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_2 : \iota$ be given. Let $k2_compos_1 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k3_xtuple_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_compos_1 : \iota \Rightarrow o$ be given. Let $v1_compos_0 : \iota \Rightarrow o$ be given. Let $v2_compos_0 : \iota \Rightarrow o$ be given. Let $v3_compos_0 : \iota \Rightarrow o$ be given. Let $v5_compos_0 : \iota \Rightarrow o$ be given. Let $l1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_compos_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$k6_numbers = k1_xboole_0 \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge (\\ & (v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0))))))) \Rightarrow \\ & (\forall X1. (m1_subset_1 X1 (u1_compos_1 (k1_scmring2 X0))) \Rightarrow \\ & ((v2_extpro_1 X1 np_2 (k1_scmring2 X0)) \Rightarrow (X1 = k3_xtuple_0 k6_numbers \\ & k1_xboole_0 k1_xboole_0))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_compos_1 X0) \Rightarrow ((v1_compos_0 (u1_compos_1 X0)) \wedge \\ & ((v2_compos_0 (u1_compos_1 X0)) \wedge ((v3_compos_0 (u1_compos_1 \\ & X0)) \wedge (v5_compos_0 (u1_compos_1 X0)))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. (l1_extpro_1 X1 X0) \Rightarrow ((l1_memstr_0 X1 X0) \wedge (l1_compos_1 X1)) \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge (\\ (v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow \\ ((v1_extpro_1 (k1_scmring2 X0) np_2) \wedge (l1_extpro_1 (k1_scmring2 \\ X0) np_2)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. k3_xtuple_0 X0 X1 X2 = k4_tarski \\ (k4_tarski X0 X1) X2 \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0. (v5_compos_0 X0) \Rightarrow (k6_compos_0 X0 = k3_xtuple_0 k6_numbers \\ k1_xboole_0 k1_xboole_0) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_compos_1 X0) \Rightarrow (k2_compos_1 X0 = k6_compos_0 (u1_compos_1 \\ X0)) \end{aligned} \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge (\\ (v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow \\ (\forall X1. (m1_subset_1 X1 (u1_compos_1 (k1_scmring2 X0))) \Rightarrow \\ ((v2_extpro_1 X1 np_2 (k1_scmring2 X0)) \Rightarrow (X1 = k2_compos_1 (k1_scmring2 \\ X0)))) \end{aligned}$$