

t11_normsp_2 (TMUSSsRYNrP- whJbRhCk11pkVrxZfQs372GM)

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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 $v5_rlvect_1 : \iota \Rightarrow o$ be given. Let $v6_rlvect_1 : \iota \Rightarrow o$ be given. Let $v7_rlvect_1 : \iota \Rightarrow o$ be given. Let $v8_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_normsp_0 : \iota \Rightarrow o$ be given. Let $v4_normsp_0 : \iota \Rightarrow o$ be given. Let $v2_normsp_1 : \iota \Rightarrow o$ be given. Let $l1_normsp_1 : \iota \Rightarrow o$ be given. Let $v4_frechet : \iota \Rightarrow o$ be given. Let $k3_normsp_2 : \iota \Rightarrow \iota$ be given. Let $v6_metric_1 : \iota \Rightarrow o$ be given. Let $v7_metric_1 : \iota \Rightarrow o$ be given. Let $v8_metric_1 : \iota \Rightarrow o$ be given. Let $v9_metric_1 : \iota \Rightarrow o$ be given. Let $l1_metric_1 : \iota \Rightarrow o$ be given. Let $v1_frechet : \iota \Rightarrow o$ be given. Let $k3_pcomps_1 : \iota \Rightarrow \iota$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $k2_normsp_2 : \iota \Rightarrow \iota$ be given. Let $v3_frechet : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v6_metric_1 X0) \wedge ((v7_metric_1 \\ &X0) \wedge ((v8_metric_1 X0) \wedge ((v9_metric_1 X0) \wedge (l1_metric_1 X0)))))) \Rightarrow \quad (1) \\ &(v1_frechet (k3_pcomps_1 X0)) \end{aligned}$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ &X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\ &((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge ((v3_normsp_0 \\ &X0) \wedge ((v4_normsp_0 X0) \wedge ((v2_normsp_1 X0) \wedge (l1_normsp_1 X0)))))))))) \Rightarrow \\ &((\neg v2_struct_0 (k3_normsp_2 X0)) \wedge ((v2_pre_topc (k3_normsp_2 \\ &X0)) \wedge (l1_pre_topc (k3_normsp_2 X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (& \neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge ((v3_normsp_0 \\ & X0) \wedge ((v4_normsp_0 X0) \wedge ((v2_normsp_1 X0) \wedge (l1_normsp_1 X0)))))))))) \Rightarrow \\ & ((\neg v2_struct_0 (k2_normsp_2 X0)) \wedge ((v6_metric_1 (k2_normsp_2 \\ & X0)) \wedge ((v7_metric_1 (k2_normsp_2 X0)) \wedge ((v8_metric_1 (k2_normsp_2 \\ & X0)) \wedge ((v9_metric_1 (k2_normsp_2 X0)) \wedge (l1_metric_1 (k2_normsp_2 \\ & X0))))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. (& \neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge ((v3_normsp_0 \\ & X0) \wedge ((v4_normsp_0 X0) \wedge ((v2_normsp_1 X0) \wedge (l1_normsp_1 X0)))))))))) \Rightarrow \\ & (k3_normsp_2 X0 = k3_pcomps_1 (k2_normsp_2 X0)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_pre_topc X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge ((v2_pre_topc \\ X0) \wedge (v3_frechet X0))) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge \\ (v4_frechet X0)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_pre_topc X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge ((v2_pre_topc \\ X0) \wedge (v1_frechet X0))) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge \\ (v3_frechet X0)))) \end{aligned} \quad (6)$$

Theorem 1

$$\begin{aligned} \forall X0. (& \neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge ((v3_normsp_0 \\ & X0) \wedge ((v4_normsp_0 X0) \wedge ((v2_normsp_1 X0) \wedge (l1_normsp_1 X0)))))))))) \Rightarrow \\ & (v4_frechet (k3_normsp_2 X0)) \end{aligned}$$