

t28_quatern3
(TMGAqBWgiRjKPniBwNfvxcYRNn14iQva3jY)

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Let $v1_quaterni : \iota \Rightarrow o$ be given. Let $k25_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k5_square_1 : \iota \Rightarrow \iota$ be given. Let $k3_quatern2 : \iota \Rightarrow \iota$ be given. Let $k31_quaterni : \iota \Rightarrow \iota$ be given. Let $k6_quaterni : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_quaterni : \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $k18_quaterni : \iota \Rightarrow \iota$ be given. Let $k19_quaterni : \iota \Rightarrow \iota$ be given. Let $k20_quaterni : \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $k1_quaterni : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_quaterni X0) \Rightarrow & (k20_quaterni (k25_quaterni (k10_real_1 \\ & np_1 (k5_square_1 (k3_quatern2 X0))) (k31_quaterni X0)) = k1_real_1 \\ & (k8_real_1 (k10_real_1 np_1 (k5_square_1 (k3_quatern2 X0))) \\ & (k20_quaterni X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_quaterni X0) \Rightarrow & (k19_quaterni (k25_quaterni (k10_real_1 \\ & np_1 (k5_square_1 (k3_quatern2 X0))) (k31_quaterni X0)) = k1_real_1 \\ & (k8_real_1 (k10_real_1 np_1 (k5_square_1 (k3_quatern2 X0))) \\ & (k19_quaterni X0))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_quaterni X0) \Rightarrow & (k18_quaterni (k25_quaterni (k10_real_1 \\ & np_1 (k5_square_1 (k3_quatern2 X0))) (k31_quaterni X0)) = k1_real_1 \\ & (k8_real_1 (k10_real_1 np_1 (k5_square_1 (k3_quatern2 X0))) \\ & (k18_quaterni X0))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_quaterni X0) \Rightarrow & (X0 = k6_quaterni (k17_quaterni X0) \\ & (k18_quaterni X0) (k19_quaterni X0) (k20_quaterni X0)) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.(v1_quaterni\ X0)\Rightarrow(k17_quaterni\ (k25_quaterni\ (k10_real_1\ np_1\ (k5_square_1\ (k3_quatern2\ X0))))\ (k31_quaterni\ X0)) = k8_real_1\ (k10_real_1\ np_1\ (k5_square_1\ (k3_quatern2\ X0)))\ (k17_quaterni\ X0)) \quad (5)$$

Assume the following.

$$((v2_xreal_0\ np_1)\wedge(m2_subset_1\ np_1\ k1_numbers\ k5_numbers))\wedge((m1_subset_1\ np_1\ k5_numbers)\wedge(m1_subset_1\ np_1\ k1_numbers)) \quad (6)$$

Assume the following.

$$v3_membered\ k1_numbers \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1\ X0\ k1_numbers)\wedge(v1_quaterni\ X1))\Rightarrow(v1_quaterni\ (k25_quaterni\ X0\ X1)) \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k1_numbers)\Rightarrow(m1_subset_1\ (k5_square_1\ X0)\ k1_numbers) \quad (9)$$

Assume the following.

$$\forall X0.(v1_quaterni\ X0)\Rightarrow(m1_subset_1\ (k3_quatern2\ X0)\ k1_numbers) \quad (10)$$

Assume the following.

$$\forall X0.(v1_quaterni\ X0)\Rightarrow(m1_subset_1\ (k31_quaterni\ X0)\ k1_quaterni) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1\ X0\ k1_numbers)\wedge(v1_xreal_0\ X1))\Rightarrow(m1_subset_1\ (k10_real_1\ X0\ X1)\ k1_numbers) \quad (12)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k1_quaterni)\Rightarrow(v1_quaterni\ X0) \quad (13)$$

Assume the following.

$$\forall X0.(v3_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow(v1_xreal_0\ X1)) \quad (14)$$

Theorem 1

$$\begin{aligned} \forall X0.(v1_quaterni\ X0) \Rightarrow & (k25_quaterni\ (k10_real_1\ np_1 \\ & (k5_square_1\ (k3_quatern2\ X0)))\ (k31_quaterni\ X0) = k6_quaterni \\ & (k8_real_1\ (k10_real_1\ np_1\ (k5_square_1\ (k3_quatern2\ X0)))) \\ (k17_quaterni\ X0)) & (k1_real_1\ (k8_real_1\ (k10_real_1\ np_1\ (k5_square_1 \\ & (k3_quatern2\ X0)))\ (k18_quaterni\ X0)))\ (k1_real_1\ (k8_real_1 \\ & (k10_real_1\ np_1\ (k5_square_1\ (k3_quatern2\ X0)))\ (k19_quaterni \\ X0))) & (k1_real_1\ (k8_real_1\ (k10_real_1\ np_1\ (k5_square_1\ (k3_quatern2 \\ & X0)))\ (k20_quaterni\ X0)))) \end{aligned}$$