

t44_quaterni
(TMKkzrJezzaDJ3JKv1VXqByHXR1Dq89ZycD)

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Let $v1_quaterni : \iota \Rightarrow o$ be given. Let $k17_quaterni : \iota \Rightarrow \iota$ be given. Let $k31_quaterni : \iota \Rightarrow \iota$ be given. Let $k18_quaterni : \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $k19_quaterni : \iota \Rightarrow \iota$ be given. Let $k20_quaterni : \iota \Rightarrow \iota$ be given. Let $k6_quaterni : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_quaterni X0) \Rightarrow (k31_quaterni X0 = k6_quaterni (k17_quaterni \\ X0) (k1_real_1 (k18_quaterni X0)) (k1_real_1 (k19_quaterni X0)) \\ (k1_real_1 (k20_quaterni X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k1_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow (\forall X3. \\ (m1_subset_1 X3 k1_numbers) \Rightarrow ((k17_quaterni (k6_quaterni X0 X1 \\ X2 X3) = X0) \wedge ((k18_quaterni (k6_quaterni X0 X1 X2 X3) = X1) \wedge ((k19_quaterni \\ (k6_quaterni X0 X1 X2 X3) = X2) \wedge (k20_quaterni (k6_quaterni X0 X1 \\ X2 X3) = X3)))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (m1_subset_1 (k20_quaterni X0) k1_numbers) \tag{3}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (m1_subset_1 (k1_real_1 \\ X0) k1_numbers) \tag{4}$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (m1_subset_1 (k19_quaterni X0) k1_numbers) \tag{5}$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (m1_subset_1 (k18_quaterni X0) k1_numbers) \tag{6}$$

Assume the following.

$$\forall X0.(v1_quaterni\ X0)\Rightarrow(m1_subset_1\ (k17_quaterni\ X0)\ k1_numbers) \quad (7)$$

Theorem 1

$$\begin{aligned} \forall X0.(v1_quaterni\ X0)\Rightarrow(&((k17_quaterni\ (k31_quaterni\ X0) = \\ &k17_quaterni\ X0)\wedge((k18_quaterni\ (k31_quaterni\ X0) = k1_real_1 \\ &(k18_quaterni\ X0))\wedge((k19_quaterni\ (k31_quaterni\ X0) = k1_real_1 \\ &(k19_quaterni\ X0))\wedge(k20_quaterni\ (k31_quaterni\ X0) = k1_real_1 \\ &(k20_quaterni\ X0)))))) \end{aligned}$$