

t78_quatern3
(TMZWXYZELqYyQbLnAmwBz2QXpgeGXuE7N9vi)

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Let $v1_quaterni : \iota \Rightarrow o$ be given. Let $k1_quatern3 : \iota \Rightarrow \iota$ be given. Let $k6_quaterni : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_square_1 : \iota \Rightarrow \iota$ be given. Let $k17_quaterni : \iota \Rightarrow \iota$ 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 $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k27_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_quaterni X0) \Rightarrow & ((k17_quaterni (k27_quaterni X0 \\ X0) = k9_real_1 (k9_real_1 (k9_real_1 (k5_square_1 (k17_quaterni \\ X0)) (k5_square_1 (k18_quaterni X0))) (k5_square_1 (k19_quaterni \\ X0))) (k5_square_1 (k20_quaterni X0))) \wedge & ((k18_quaterni (k27_quaterni \\ X0 X0) = k8_real_1 np_2 (k8_real_1 (k17_quaterni X0) (k18_quaterni \\ X0))) \wedge & ((k19_quaterni (k27_quaterni X0 X0) = k8_real_1 np_2 (k8_real_1 \\ (k17_quaterni X0) (k19_quaterni X0))) \wedge & (k20_quaterni (k27_quaterni \\ X0 X0) = k8_real_1 np_2 (k8_real_1 (k17_quaterni X0) (k20_quaterni \\ X0)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (X0 = k6_quaterni (k17_quaterni X0) (k18_quaterni X0) (k19_quaterni X0) (k20_quaterni X0)) \tag{2}$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (v1_quaterni (k1_quatern3 X0)) \tag{3}$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (k1_quatern3 X0 = k27_quaterni X0 X0) \tag{4}$$

Theorem 1

$$\begin{aligned} \forall X0.(v1_quaterni\ X0) \Rightarrow & (k1_quatern3\ X0 = k6_quaterni\ (k9_real_1 \\ & (k9_real_1\ (k9_real_1\ (k5_square_1\ (k17_quaterni\ X0))\ (k5_square_1 \\ & (k18_quaterni\ X0)))\ (k5_square_1\ (k19_quaterni\ X0)))\ (k5_square_1 \\ & (k20_quaterni\ X0)))\ (k8_real_1\ np_2\ (k8_real_1\ (k17_quaterni \\ & X0)\ (k18_quaterni\ X0)))\ (k8_real_1\ np_2\ (k8_real_1\ (k17_quaterni \\ & X0)\ (k19_quaterni\ X0)))\ (k8_real_1\ np_2\ (k8_real_1\ (k17_quaterni \\ & X0)\ (k20_quaterni\ X0)))) \end{aligned}$$