

t36_quaterni
(TMGVkziBcb5eM9Hu9eupWUShYuuvSSpt9p3)

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Let $v1_quaterni : \iota \Rightarrow o$ be given. Let $k17_quaterni : \iota \Rightarrow \iota$ be given. Let $k26_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k7_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. ((v1_quaterni X0) \wedge (v1_quaterni X1)) \Rightarrow (k26_quaterni X0 X1 = k7_quaterni X0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_quaterni X0) \Rightarrow (\forall X1. (v1_quaterni X1) \Rightarrow (\forall X2. \\ & (v1_quaterni X2) \Rightarrow ((X2 = k7_quaterni X0 X1) \Rightarrow ((k17_quaterni X2 = \\ & k7_real_1 (k17_quaterni X0) (k17_quaterni X1)) \wedge ((k18_quaterni \\ & X2 = k7_real_1 (k18_quaterni X0) (k18_quaterni X1)) \wedge ((k19_quaterni \\ & X2 = k7_real_1 (k19_quaterni X0) (k19_quaterni X1)) \wedge (k20_quaterni \\ & X2 = k7_real_1 (k20_quaterni X0) (k20_quaterni X1)))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_quaterni X0) \wedge (v1_quaterni X1)) \Rightarrow (v1_quaterni (k7_quaterni X0 X1)) \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0. (v1_quaterni X0) \Rightarrow (\forall X1. (v1_quaterni X1) \Rightarrow ((\\ & k17_quaterni (k26_quaterni X0 X1) = k7_real_1 (k17_quaterni X0) \\ & (k17_quaterni X1)) \wedge ((k18_quaterni (k26_quaterni X0 X1) = k7_real_1 \\ & (k18_quaterni X0) (k18_quaterni X1)) \wedge ((k19_quaterni (k26_quaterni \\ & X0 X1) = k7_real_1 (k19_quaterni X0) (k19_quaterni X1)) \wedge (k20_quaterni \\ & (k26_quaterni X0 X1) = k7_real_1 (k20_quaterni X0) (k20_quaterni \\ & X1)))))) \end{aligned}$$