

t7_quatern3 (TMUjBvwNhChKAtdax- PXkNKP5PodYR6a3ppo)

October 27, 2020

Let $v1_quaterni : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k27_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_quaterni : \iota$ be given. Let $k6_quaterni : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k17_quaterni : \iota \Rightarrow \iota$ be given. Let $k26_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k23_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k25_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_quaterni : \iota \Rightarrow \iota$ be given. Let $k1_xcmplx_0 : \iota$ be given. Let $k19_quaterni : \iota \Rightarrow \iota$ be given. Let $k11_quaterni : \iota$ be given. Let $k20_quaterni : \iota \Rightarrow \iota$ be given. Let $k10_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_quaterni : \iota$ be given. Let $k9_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_quaterni X0) \Rightarrow (X0 = k26_quaterni (k26_quaterni \\ (k23_quaterni (k17_quaterni X0) (k25_quaterni (k18_quaterni \\ X0) k1_xcmplx_0)) (k25_quaterni (k19_quaterni X0) k11_quaterni)) \\ (k25_quaterni (k20_quaterni X0) k12_quaterni)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_quaterni X0) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow \\ ((X0 = X1) \Rightarrow ((k17_quaterni (k10_quaterni X0) k12_quaterni) = k6_numbers) \wedge \\ ((k18_quaterni (k10_quaterni X0) k12_quaterni) = k6_numbers) \wedge \\ ((k19_quaterni (k10_quaterni X0) k12_quaterni) = k6_numbers) \wedge \\ (k20_quaterni (k10_quaterni X0) k12_quaterni) = X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1_quaterni X0) \wedge (v1_quaterni X1)) \Rightarrow (k27_quaterni X0 X1 = k10_quaterni X0 X1) \quad (3)$$

Assume the following.

$$k12_quaterni = k5_quaterni \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1_quaterni\ X0) \Rightarrow (\forall X1.(v1_quaterni\ X1) \Rightarrow ((\\
& \quad k17_quaterni\ (k10_quaterni\ X0\ X1) = k9_real_1\ (k9_real_1\ (k9_real_1\ (k8_real_1 \\
& \quad (k8_real_1\ (k17_quaterni\ X0)\ (k17_quaterni\ X1))\ (k8_real_1\ (k18_quaterni \\
& \quad X0)\ (k18_quaterni\ X1)))\ (k8_real_1\ (k19_quaterni\ X0)\ (k19_quaterni \\
& \quad X1)))\ (k8_real_1\ (k20_quaterni\ X0)\ (k20_quaterni\ X1))) \wedge ((k18_quaterni \\
& \quad (k10_quaterni\ X0\ X1) = k9_real_1\ (k7_real_1\ (k7_real_1\ (k8_real_1 \\
& \quad (k17_quaterni\ X0)\ (k18_quaterni\ X1))\ (k8_real_1\ (k18_quaterni \\
& \quad X0)\ (k17_quaterni\ X1)))\ (k8_real_1\ (k19_quaterni\ X0)\ (k20_quaterni \\
& \quad X1)))\ (k8_real_1\ (k20_quaterni\ X0)\ (k19_quaterni\ X1))) \wedge ((k19_quaterni \\
& \quad (k10_quaterni\ X0\ X1) = k9_real_1\ (k7_real_1\ (k7_real_1\ (k8_real_1 \\
& \quad (k17_quaterni\ X0)\ (k19_quaterni\ X1))\ (k8_real_1\ (k19_quaterni \\
& \quad X0)\ (k17_quaterni\ X1)))\ (k8_real_1\ (k20_quaterni\ X0)\ (k18_quaterni \\
& \quad X1)))\ (k8_real_1\ (k18_quaterni\ X0)\ (k20_quaterni\ X1))) \wedge (k20_quaterni \\
& \quad (k10_quaterni\ X0\ X1) = k9_real_1\ (k7_real_1\ (k7_real_1\ (k8_real_1 \\
& \quad (k17_quaterni\ X0)\ (k20_quaterni\ X1))\ (k8_real_1\ (k20_quaterni \\
& \quad X0)\ (k17_quaterni\ X1)))\ (k8_real_1\ (k18_quaterni\ X0)\ (k19_quaterni \\
& \quad X1)))\ (k8_real_1\ (k19_quaterni\ X0)\ (k18_quaterni\ X1))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1_quaterni\ X0) \Rightarrow (\forall X1.(v1_quaterni\ X1) \Rightarrow (k10_quaterni \\
& \quad X0\ X1 = k6_quaterni\ (k9_real_1\ (k9_real_1\ (k9_real_1\ (k8_real_1 \\
& \quad (k17_quaterni\ X0)\ (k17_quaterni\ X1))\ (k8_real_1\ (k18_quaterni \\
& \quad X0)\ (k18_quaterni\ X1)))\ (k8_real_1\ (k19_quaterni\ X0)\ (k19_quaterni \\
& \quad X1)))\ (k8_real_1\ (k20_quaterni\ X0)\ (k20_quaterni\ X1)))\ (k9_real_1 \\
& \quad (k7_real_1\ (k7_real_1\ (k8_real_1\ (k17_quaterni\ X0)\ (k18_quaterni \\
& \quad X1))\ (k8_real_1\ (k18_quaterni\ X0)\ (k17_quaterni\ X1)))\ (k8_real_1 \\
& \quad (k19_quaterni\ X0)\ (k20_quaterni\ X1)))\ (k8_real_1\ (k20_quaterni \\
& \quad X0)\ (k19_quaterni\ X1)))\ (k9_real_1\ (k7_real_1\ (k7_real_1\ (k8_real_1 \\
& \quad (k17_quaterni\ X0)\ (k19_quaterni\ X1))\ (k8_real_1\ (k19_quaterni \\
& \quad X0)\ (k17_quaterni\ X1)))\ (k8_real_1\ (k20_quaterni\ X0)\ (k18_quaterni \\
& \quad X1)))\ (k8_real_1\ (k18_quaterni\ X0)\ (k20_quaterni\ X1)))\ (k9_real_1 \\
& \quad (k7_real_1\ (k7_real_1\ (k8_real_1\ (k17_quaterni\ X0)\ (k20_quaterni \\
& \quad X1))\ (k8_real_1\ (k20_quaterni\ X0)\ (k17_quaterni\ X1)))\ (k8_real_1 \\
& \quad (k18_quaterni\ X0)\ (k19_quaterni\ X1)))\ (k8_real_1\ (k19_quaterni \\
& \quad X0)\ (k18_quaterni\ X1))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1_quaterni\ X0) \Rightarrow ((m1_subset_1\ X0\ k1_numbers) \Rightarrow ((\\
& \quad X0 = k17_quaterni\ X0) \wedge ((k18_quaterni\ X0 = k6_numbers) \wedge ((k19_quaterni \\
& \quad X0 = k6_numbers) \wedge (k20_quaterni\ X0 = k6_numbers))))))
\end{aligned} \tag{7}$$

Assume the following.

$$v1_quaterni\ k5_quaterni \tag{8}$$

Theorem 1

$$\forall X0.(v1_quaterni\ X0) \Rightarrow ((m1_subset_1\ X0\ k1_numbers) \Rightarrow (k27_quaterni\ X0\ k12_quaterni = k6_quaterni\ k6_numbers\ k6_numbers\ k6_numbers\ (k17_quaterni\ X0)))$$