

t33_quaterni

(TMaBUFVX5uM7Ft3XFNt7BdWpsCAJaCwM1ec)

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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 $k17_quaterni : \iota \Rightarrow \iota$ be given. Let $k10_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xcmplx_0 : \iota$ be given. Let $k6_numbers : \iota$ 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 $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k5_numbers : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ 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. Let $k1_xboole_0 : \iota$ be given. Let $k14_quaterni : \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k6_xcmplx_0 X0 \ k6_numbers = X0) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k3_xcmplx_0 \ np_1 \ X0 = X0) \quad (2)$$

Assume the following.

$$(k17_quaterni \ k1_xcmplx_0 = k6_numbers) \wedge ((k18_quaterni \ k1_xcmplx_0 = np_1) \wedge ((k19_quaterni \ k1_xcmplx_0 = k6_numbers) \wedge (k20_quaterni \ k1_xcmplx_0 = k6_numbers))) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k3_xcmplx_0 X0 \ k6_numbers = k6_numbers) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k2_xcmplx_0 X0 \ k6_numbers = X0) \quad (5)$$

Assume the following.

$$((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(v1_xreal_0 X1))\Rightarrow(k9_real_1 X0 X1 = k6_xcmplx_0 X0 X1) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(v1_xreal_0 X1))\Rightarrow(k8_real_1 X0 X1 = k3_xcmplx_0 X0 X1) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(v1_xreal_0 X1))\Rightarrow(k7_real_1 X0 X1 = k2_xcmplx_0 X0 X1) \quad (9)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (10)$$

Assume the following.

$$\forall X0.(v1_quaterni X0)\Rightarrow(k18_quaterni X0 = k14_quaterni X0) \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_quaterni X0)\Rightarrow(\forall X1.(m1_subset_1 X1 k1_numbers)\Rightarrow \\ ((X0 = X1)\Rightarrow((k17_quaterni X0 = X1)\wedge((k18_quaterni X0 = k6_numbers)\wedge \\ ((k19_quaterni X0 = k6_numbers)\wedge(k20_quaterni X0 = k6_numbers)))))) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_quaterni X0)\Rightarrow(\forall X1.(v1_quaterni X1)\Rightarrow((\\ k17_quaterni (k10_quaterni X0 X1) = k9_real_1 (k9_real_1 (k9_real_1 \\ (k8_real_1 (k17_quaterni X0) (k17_quaterni X1)) (k8_real_1 (k18_quaterni \\ X0) (k18_quaterni X1))) (k8_real_1 (k19_quaterni X0) (k19_quaterni \\ X1))) (k8_real_1 (k20_quaterni X0) (k20_quaterni X1)))\wedge((k18_quaterni \\ (k10_quaterni X0 X1) = k9_real_1 (k7_real_1 (k7_real_1 (k8_real_1 \\ (k17_quaterni X0) (k18_quaterni X1)) (k8_real_1 (k18_quaterni \\ X0) (k17_quaterni X1))) (k8_real_1 (k19_quaterni X0) (k20_quaterni \\ X1))) (k8_real_1 (k20_quaterni X0) (k19_quaterni X1)))\wedge((k19_quaterni \\ (k10_quaterni X0 X1) = k9_real_1 (k7_real_1 (k7_real_1 (k8_real_1 \\ (k17_quaterni X0) (k19_quaterni X1)) (k8_real_1 (k19_quaterni \\ X0) (k17_quaterni X1))) (k8_real_1 (k20_quaterni X0) (k18_quaterni \\ X1))) (k8_real_1 (k18_quaterni X0) (k20_quaterni X1)))\wedge(k20_quaterni \\ (k10_quaterni X0 X1) = k9_real_1 (k7_real_1 (k7_real_1 (k8_real_1 \\ (k17_quaterni X0) (k20_quaterni X1)) (k8_real_1 (k20_quaterni \\ X0) (k17_quaterni X1))) (k8_real_1 (k18_quaterni X0) (k19_quaterni \\ X1))) (k8_real_1 (k19_quaterni X0) (k18_quaterni X1)))))) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0.(v1_quaterni\ X0)\Rightarrow(v1_xreal_0\ (k14_quaterni\ X0)) \quad (14)$$

Assume the following.

$$v1_quaterni\ k1_xcmplx_0 \quad (15)$$

Assume the following.

$$v3_membered\ k1_numbers \quad (16)$$

Assume the following.

$$\forall X0.(v1_quaterni\ X0)\Rightarrow(m1_subset_1\ (k18_quaterni\ X0)\ k1_numbers) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1\ X0\ k1_numbers)\wedge(v1_xreal_0\ X1))\Rightarrow(k8_real_1\ X0\ X1 = k8_real_1\ X1\ X0) \quad (18)$$

Assume the following.

$$\forall X0.(v1_xreal_0\ X0)\Rightarrow(v1_xcmplx_0\ X0) \quad (19)$$

Assume the following.

$$\forall X0.(v3_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow(v1_xreal_0\ X1)) \quad (20)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_quaterni\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ k1_numbers)\Rightarrow \\ & ((X0 = X1)\Rightarrow((k17_quaterni\ (k10_quaterni\ X0\ k1_xcmplx_0) = k6_numbers)\wedge \\ & ((k18_quaterni\ (k10_quaterni\ X0\ k1_xcmplx_0) = X1)\wedge((k19_quaterni \\ & (k10_quaterni\ X0\ k1_xcmplx_0) = k6_numbers)\wedge(k20_quaterni\ (k10_quaterni \\ & X0\ k1_xcmplx_0) = k6_numbers)))))) \end{aligned}$$