

t71_quaterni (TMQT-
bJH5uzg7wYcQEVUTCcks4N2xh5SnExU)

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Let $k32_quaterni : \iota \Rightarrow \iota$ be given. Let $k12_quaterni : \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k17_quaterni : \iota \Rightarrow \iota$ be given. Let $k11_quaterni : \iota$ 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 $k7_square_1 : \iota \Rightarrow \iota$ 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 $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_0 : \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_square_1 : \iota \Rightarrow \iota$ be given. Let $k3_square_1 : \iota \Rightarrow \iota$ be given. Let $k5_quaterni : \iota$ be given. Let $v1_quaterni : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} & (k17_quaterni k11_quaterni = k6_numbers) \wedge ((k18_quaterni k11_quaterni = \\ & \quad k6_numbers) \wedge ((k19_quaterni k11_quaterni = np_1) \wedge ((k20_quaterni \\ & \quad k11_quaterni = k6_numbers) \wedge ((k17_quaterni k12_quaterni = k6_numbers) \wedge \\ & \quad ((k18_quaterni k12_quaterni = k6_numbers) \wedge ((k19_quaterni k12_quaterni = \\ & \quad \quad k6_numbers) \wedge (k20_quaterni k12_quaterni = np_1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$k7_square_1 np_1 = np_1 \quad (3)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & (m2_subset_1 np_0 k1_numbers k5_numbers) \wedge ((m1_subset_1 np_0 \\ & \quad k5_numbers) \wedge (m1_subset_1 np_0 k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$v1_xboole_0 \ np_0 \tag{6}$$

Assume the following.

$$k3_xcmplx_0 \ np_1 \ np_1 = np_1 \tag{7}$$

Assume the following.

$$k3_xcmplx_0 \ np_0 \ np_0 = np_0 \tag{8}$$

Assume the following.

$$k2_xcmplx_0 \ np_0 \ np_1 = np_1 \tag{9}$$

Assume the following.

$$k2_xcmplx_0 \ np_0 \ np_0 = np_0 \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_numbers)\wedge(v1_xreal_0 \ X1))\Rightarrow(k7_real_1 \ X0 \ X1 = k2_xcmplx_0 \ X0 \ X1) \tag{11}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{12}$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k1_numbers)\Rightarrow(k5_square_1 \ X0 = k3_square_1 \ X0) \tag{13}$$

Assume the following.

$$k12_quaterni = k5_quaterni \tag{14}$$

Assume the following.

$$v1_quaterni \ k5_quaterni \tag{15}$$

Assume the following.

$$\forall X0.(v1_quaterni \ X0)\Rightarrow(k32_quaterni \ X0 = k7_square_1 \ (k7_real_1 \ (k7_real_1 \ (k7_real_1 \ (k5_square_1 \ (k17_quaterni \ X0)) \ (k5_square_1 \ (k18_quaterni \ X0)))) \ (k5_square_1 \ (k19_quaterni \ X0))) \ (k5_square_1 \ (k20_quaterni \ X0)))) \tag{16}$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 \ X0)\Rightarrow(k3_square_1 \ X0 = k3_xcmplx_0 \ X0 \ X0) \tag{17}$$

Assume the following.

$$\forall X0.(v1_xreal_0 \ X0)\Rightarrow(v1_xcmplx_0 \ X0) \tag{18}$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k1_numbers)\Rightarrow(v1_xreal_0 \ X0) \tag{19}$$

Theorem 1 $k32_quaterni \ k12_quaterni = np_1$.