

t68_quaterni (TMU6Vv6ptuDQjDhLHuQQQsvDyhihbBdbnn5)

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Let $k32_quaterni : \iota \Rightarrow \iota$ be given. Let $k22_quaterni : \iota$ 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 $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ 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 $k6_quaterni : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k7_square_1 : \iota \Rightarrow \iota$ 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 $k5_numbers : \iota$ be given. Let $np_0 : \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ 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 $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_quaterni : \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k3_xcmplx_0 X0 \ k6_numbers = k6_numbers) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 \ k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & \quad X1 \ k1_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 \ k1_numbers) \Rightarrow (\forall X3. \\ & \quad (m1_subset_1 X3 \ k1_numbers) \Rightarrow ((k17_quaterni (k6_quaterni X0 \ X1 \\ & \quad X2 \ X3) = X0) \wedge ((k18_quaterni (k6_quaterni X0 \ X1 \ X2 \ X3) = X1) \wedge ((k19_quaterni \\ & \quad (k6_quaterni X0 \ X1 \ X2 \ X3) = X2) \wedge (k20_quaterni (k6_quaterni X0 \ X1 \\ & \quad X2 \ X3) = X3))))))))) \end{aligned} \quad (3)$$

Assume the following.

$$k7_square_1 \ np_1 = np_1 \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$(m2_subset_1 \ np_0 \ k1_numbers \ k5_numbers) \wedge ((m1_subset_1 \ np_0 \ k5_numbers) \wedge (m1_subset_1 \ np_0 \ k1_numbers)) \quad (6)$$

Assume the following.

$$v1_xboole_0 \ np_0 \quad (7)$$

Assume the following.

$$k4_xcmplx_0 \ (k4_xcmplx_0 \ np_1) = np_1 \quad (8)$$

Assume the following.

$$k3_xcmplx_0 \ np_1 \ np_1 = np_1 \quad (9)$$

Assume the following.

$$k2_xcmplx_0 \ np_1 \ np_0 = np_1 \quad (10)$$

Assume the following.

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

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (12)$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (k5_square_1 \ X0 = k3_square_1 \ X0) \quad (13)$$

Assume the following.

$$\exists X0. (v1_xboole_0 \ X0) \wedge ((v1_xcmplx_0 \ X0) \wedge ((v1_xreal_0 \ X0) \wedge (v1_xreal_0 \ X0))) \quad (14)$$

Assume the following.

$$k6_quaterni \ np_1 \ k6_numbers \ k6_numbers \ k6_numbers = np_1 \quad (15)$$

Assume the following.

$$\forall X0. (v1_xreal_0 \ X0) \Rightarrow ((v1_xcmplx_0 \ (k4_xcmplx_0 \ X0)) \wedge (v1_xreal_0 \ (k4_xcmplx_0 \ X0))) \quad (16)$$

Assume the following.

$$v1_quaterni \ k22_quaterni \quad (17)$$

Assume the following.

$$k1_xboole_0 = the (\lambda X0 : \iota.v1_xboole_0 X0) \quad (18)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_quaterni X0) \Rightarrow & (k32_quaterni X0 = k7_square_1 (k7_real_1 \\ & (k7_real_1 (k7_real_1 (k5_square_1 (k17_quaterni X0)) (k5_square_1 \\ & (k18_quaterni X0))) (k5_square_1 (k19_quaterni X0))) (k5_square_1 \\ & (k20_quaterni X0)))) \end{aligned} \quad (19)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k3_square_1 X0 = k3_xcmplx_0 X0 X0) \quad (20)$$

Assume the following.

$$k22_quaterni = np_1 \quad (21)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (22)$$

Theorem 1 $k32_quaterni k22_quaterni = np_1$.