

l82_quaterni

(TMLPZWZfxgKCS51N3JZRCGxGBUMUvYEDBxf)

October 27, 2020

Let $k25_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xcmplx_0 : \iota$ be given. Let $k11_quaterni : \iota$ be given. Let $k12_quaterni : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ 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 $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k5_quaterni : \iota$ be given. Let $k4_quaterni : \iota$ be given. Let $k6_quaterni : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_arytm_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_quaterni : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k5_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k3_xcmplx_0 X0 \ k6_numbers = k6_numbers) \quad (1)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_numbers) \wedge (v1_xreal_0 \ X1)) \Rightarrow (k8_real_1 \ X0 \ X1 = k3_xcmplx_0 \ X0 \ X1) \quad (3)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (4)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Assume the following.

$$k12_quaterni = k5_quaterni \quad (6)$$

Assume the following.

$$k11_quaterni = k4_quaterni \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k1_numbers) \Rightarrow (k6_quaterni X0 X1 k6_numbers k6_numbers = k5_arytm_0 \\ X0 X1)) \end{aligned} \quad (8)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (9)$$

Assume the following.

$$v1_quaterni k5_quaterni \quad (10)$$

Assume the following.

$$v1_quaterni k4_quaterni \quad (11)$$

Assume the following.

$$v1_quaterni k1_xcmplx_0 \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ X2 X0 X1) \Rightarrow (m1_subset_1 X2 X0)) \end{aligned} \quad (13)$$

Assume the following.

$$m2_subset_1 k6_numbers k1_numbers k5_numbers \quad (14)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (15)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k1_numbers) \Rightarrow (((X1 = k6_numbers) \Rightarrow (k5_arytm_0 X0 X1 = X0)) \wedge ((\\ X1 \neq k6_numbers) \Rightarrow (k5_arytm_0 X0 X1 = k5_funct_4 k1_numbers k6_numbers \\ np_1 X0 X1)))) \end{aligned} \quad (16)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(v1_quaterni \\ X1) \Rightarrow (\forall X2.(X2 = k25_quaterni X0 X1) \Leftrightarrow (\exists X3.(m1_subset_1 \\ X3 k1_numbers) \wedge (\exists X4.(m1_subset_1 X4 k1_numbers) \wedge (\exists X5. \\ (m1_subset_1 X5 k1_numbers) \wedge (\exists X6.(m1_subset_1 X6 k1_numbers) \wedge \\ ((X1 = k6_quaterni X3 X4 X5 X6) \wedge (X2 = k6_quaterni (k8_real_1 X0 X3) \\ (k8_real_1 X0 X4) (k8_real_1 X0 X5) (k8_real_1 X0 X6)))))))))) \end{aligned} \quad (17)$$

Assume the following.

$$k12_quaterni = k6_quaterni \ k6_numbers \ k6_numbers \ k6_numbers \ np_1 \quad (18)$$

Assume the following.

$$k11_quaterni = k6_quaterni \ k6_numbers \ k6_numbers \ np_1 \ k6_numbers \quad (19)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 \ X0 \ k1_numbers) \wedge (v1_xreal_0 \ X1)) \Rightarrow (k8_real_1 \ X0 \ X1 = k8_real_1 \ X1 \ X0) \quad (20)$$

Assume the following.

$$\forall X0. (v1_xreal_0 \ X0) \Rightarrow (v1_xcmplx_0 \ X0) \quad (21)$$

Assume the following.

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

Assume the following.

$$\forall X0. (v1_xboole_0 \ X0) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)) \Rightarrow (v1_xboole_0 \ X1)) \quad (23)$$

Theorem 1

$$(k25_quaterni \ k6_numbers \ k1_xcmplx_0 = k6_numbers) \wedge ((k25_quaterni \ k6_numbers \ k11_quaterni = k6_numbers) \wedge (k25_quaterni \ k6_numbers \ k12_quaterni = k6_numbers))$$