

l15_quaterni (TMGpH- fYM26AVf7zv4Z1NYMxcvprJoMahNpT)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k6_quaterni : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k5_arytm_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k1_quaterni : \iota$ be given. Let $k2_quaterni : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $np_2 : \iota$ be given. Let $np_3 : \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (1)$$

Assume the following.

$$m1_subset_1 k6_numbers k1_numbers \quad (2)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. ((v1_xreal_0 X0) \wedge ((v1_xreal_0 X1) \wedge ((v1_xreal_0 X2) \wedge (v1_xreal_0 X3)))) \Rightarrow (m1_subset_1 (k6_quaterni X0 X1 X2 X3) k1_quaterni) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_xreal_0 X0) \Rightarrow (\forall X1. (v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow (\forall X3. (v1_xreal_0 X3) \Rightarrow (\forall X4. (m1_subset_1 \\ & X4 k1_quaterni) \Rightarrow (((X2 = k6_numbers) \wedge (X3 = k6_numbers)) \Rightarrow ((X4 = \\ & k6_quaterni X0 X1 X2 X3) \Leftrightarrow (\exists X5. (m1_subset_1 X5 k1_numbers) \wedge \\ & (\exists X6. (m1_subset_1 X6 k1_numbers) \wedge ((X5 = X0) \wedge ((X6 = X1) \wedge \\ & (X4 = k5_arytm_0 X5 X6)))))))))) \wedge ((\neg (X2 = k6_numbers) \wedge (X3 = k6_numbers)) \Rightarrow \\ & ((X4 = k6_quaterni X0 X1 X2 X3) \Leftrightarrow (X4 = k2_quaterni k6_numbers np_1 \\ & np_2 np_3 X0 X1 X2 X3)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Leftrightarrow (X0 \in k1_numbers) \quad (6)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow (k6_quaterni X0 X1 k6_numbers k6_numbers = k5_arytm_0 X0 X1))$$