

t19_quatern2
(TMFYf1cdiSvJXmSdk1L7RVZ7pwEB5zyoA66)

October 27, 2020

Let $v1_quaterni : \iota \Rightarrow o$ be given. Let $k28_quaterni : \iota \Rightarrow \iota$ be given. Let $k27_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_quatern2 : \iota$ be given. Let $k26_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k29_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_quaterni : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_quaterni X0) \Rightarrow (\forall X1.(v1_quaterni X1) \Rightarrow (\forall X2. \\ & (v1_quaterni X2) \Rightarrow (k26_quaterni (k26_quaterni X0 X1) X2 = k26_quaterni \\ & X0 (k26_quaterni X1 X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_quaterni X0) \Rightarrow (\forall X1.(v1_quaterni X1) \Rightarrow (\forall X2. \\ & (v1_quaterni X2) \Rightarrow (k27_quaterni (k26_quaterni X0 X1) X2 = k26_quaterni \\ & (k27_quaterni X0 X2) (k27_quaterni X1 X2)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (k27_quaterni k2_quatern2 X0 = X0) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_quaterni X0) \Rightarrow (\forall X1.(v1_quaterni X1) \Rightarrow (\forall X2. \\ & (v1_quaterni X2) \Rightarrow (k29_quaterni X1 X2 = k26_quaterni (k29_quaterni \\ & X1 X0) (k29_quaterni X0 X2)))) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (\forall X1.(v1_quaterni X1) \Rightarrow (k29_quaterni X0 X1 = k28_quaterni (k29_quaterni X1 X0))) \tag{5}$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (\forall X1.(v1_quaterni X1) \Rightarrow (X0 = k26_quaterni (k29_quaterni X0 X1) X1)) \tag{6}$$

Assume the following.

$$\forall X0.(v1_quaterni\ X0)\Rightarrow(\forall X1.(v1_quaterni\ X1)\Rightarrow(X0 = k29_quaterni\ (k26_quaterni\ X0\ X1)\ X1)) \quad (7)$$

Assume the following.

$$m1_subset_1\ k2_quatern2\ k1_quaterni \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v1_quaterni\ X0)\wedge(v1_quaterni\ X1))\Rightarrow(m1_subset_1\ (k29_quaterni\ X0\ X1)\ k1_quaterni) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v1_quaterni\ X0)\wedge(v1_quaterni\ X1))\Rightarrow(m1_subset_1\ (k27_quaterni\ X0\ X1)\ k1_quaterni) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((v1_quaterni\ X0)\wedge(v1_quaterni\ X1))\Rightarrow(m1_subset_1\ (k26_quaterni\ X0\ X1)\ k1_quaterni) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((v1_quaterni\ X0)\wedge(v1_quaterni\ X1))\Rightarrow(k26_quaterni\ X0\ X1 = k26_quaterni\ X1\ X0) \quad (12)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k1_quaterni)\Rightarrow(v1_quaterni\ X0) \quad (13)$$

Theorem 1

$$\forall X0.(v1_quaterni\ X0)\Rightarrow(k28_quaterni\ X0 = k27_quaterni\ (k28_quaterni\ k2_quatern2)\ X0)$$