

t47_quatern2

(TMTxPRFXH5dp72uPcopb6cyyPQbtjthrGRe)

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Let $k8_quatern2 : \iota \Rightarrow \iota$ be given. Let $k5_struct_0 : \iota \Rightarrow \iota$ be given. Let $k16_quatern2 : \iota$ be given. Let $v1_quaterni : \iota \Rightarrow o$ be given. Let $k1_quatern2 : \iota$ be given. Let $k6_quatern2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_quatern2 : \iota$ be given. Let $k7_quatern2 : \iota \Rightarrow \iota$ be given. Let $k22_quaterni : \iota$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v34_algstr_0 : \iota \Rightarrow o$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v3_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $v6_vectsp_1 : \iota \Rightarrow o$ be given. Let $l4_struct_0 : \iota \Rightarrow o$ be given. Let $v9_struct_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l4_algstr_0 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_quaterni : \iota$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $k10_quatern2 : \iota$ be given. Let $u2_algstr_0 : \iota \Rightarrow \iota$ be given. Let $k12_quatern2 : \iota$ be given. Let $g6_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u3_struct_0 : \iota \Rightarrow \iota$ be given. Let $u2_struct_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow ((X0 \neq k1_quatern2) \Rightarrow (k6_quatern2 X0 X0 = k2_quatern2)) \quad (1)$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (k8_quatern2 X0 = k7_quatern2 X0) \quad (2)$$

Assume the following.

$$k2_quatern2 = k22_quaterni \quad (3)$$

Assume the following.

$$\begin{aligned} & (\neg v6_struct_0 k16_quatern2) \wedge ((v13_algstr_0 k16_quatern2) \wedge \\ & ((v34_algstr_0 k16_quatern2) \wedge ((v36_algstr_0 k16_quatern2) \wedge \\ & ((v2_rlvect_1 k16_quatern2) \wedge ((v3_rlvect_1 k16_quatern2) \wedge \\ & (v4_rlvect_1 k16_quatern2) \wedge ((v3_group_1 k16_quatern2) \wedge ((v3_vectsp_1 \\ & k16_quatern2) \wedge ((v5_vectsp_1 k16_quatern2) \wedge (v6_vectsp_1 k16_quatern2)))))))))) \quad (4) \end{aligned}$$

Assume the following.

$$\forall X0.((\neg v6_struct_0 X0) \wedge (l4_struct_0 X0)) \Rightarrow (\neg v9_struct_0 (k5_struct_0 X0) X0) \quad (5)$$

Assume the following.

$$\forall X0.(l2_struct_0 X0) \Rightarrow (v9_struct_0 (k4_struct_0 X0) X0) \quad (6)$$

Assume the following.

$$\forall X0.(l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(l5_algstr_0 X0) \Rightarrow ((l4_algstr_0 X0) \wedge (l4_struct_0 X0)) \quad (8)$$

Assume the following.

$$\forall X0.(l2_algstr_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l1_algstr_0 X0)) \quad (9)$$

Assume the following.

$$v1_quaterni \ k22_quaterni \quad (10)$$

Assume the following.

$$(v36_algstr_0 \ k16_quatern2) \wedge (l6_algstr_0 \ k16_quatern2) \quad (11)$$

Assume the following.

$$\forall X0.(v1_quaterni \ X0) \Rightarrow (k7_quatern2 \ X0 = k6_quatern2 \ k2_quatern2 \ X0) \quad (12)$$

Assume the following.

$$k22_quaterni = np_1 \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.((v36_algstr_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow ((X0 = k16_quatern2) \Leftrightarrow \\ ((u1_struct_0 X0 = k1_quaterni) \wedge ((u1_algstr_0 X0 = k10_quatern2) \wedge \\ ((u2_algstr_0 X0 = k12_quatern2) \wedge ((k5_struct_0 X0 = k2_quatern2) \wedge \\ (k4_struct_0 X0 = k1_quatern2)))))) \end{aligned} \quad (14)$$

Assume the following.

$$\forall X0.(l6_algstr_0 X0) \Rightarrow ((v36_algstr_0 X0) \Rightarrow (X0 = g6_algstr_0 (u1_struct_0 X0) (u1_algstr_0 X0) (u2_algstr_0 X0) (u3_struct_0 X0) (u2_struct_0 X0))) \quad (15)$$

Theorem 1 $k8_quatern2 (k5_struct_0 \ k16_quatern2) = k5_struct_0 \ k16_quatern2.$