

t82_quaterni
(TMe16mrj3y3im3rKpoe4ACgYVUkbKDJUYqR)

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Let $v1_quaterni : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32_quaterni : \iota \Rightarrow \iota$ be given. Let $k29_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k26_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k28_quaterni : \iota \Rightarrow \iota$ be given. Let $k9_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_quaterni : \iota \Rightarrow \iota$ be given. Let $k7_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (\forall X1.(v1_quaterni X1) \Rightarrow (r1_xxreal_0 (k6_xcmplx_0 (k32_quaterni X0) (k32_quaterni X1)) (k32_quaterni (k26_quaterni X0 X1)))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (k32_quaterni (k28_quaterni X0) = k32_quaterni X0) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1_quaterni X0) \wedge (v1_quaterni X1)) \Rightarrow (k29_quaterni X0 X1 = k9_quaterni X0 X1) \quad (3)$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (k28_quaterni X0 = k8_quaterni X0) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v1_quaterni X0) \wedge (v1_quaterni X1)) \Rightarrow (k26_quaterni X0 X1 = k7_quaterni X0 X1) \quad (5)$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (v1_quaterni (k8_quaterni X0)) \quad (6)$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (\forall X1.(v1_quaterni X1) \Rightarrow (k9_quaterni X0 X1 = k7_quaterni X0 (k8_quaterni X1))) \quad (7)$$

Theorem 1

$$\forall X0.(v1_quaterni\ X0) \Rightarrow (\forall X1.(v1_quaterni\ X1) \Rightarrow (r1_xreal_0 \\ (k6_xcmplx_0\ (k32_quaterni\ X0)\ (k32_quaterni\ X1))\ (k32_quaterni \\ (k29_quaterni\ X0\ X1))))$$