t45_quatern3 (TMJbXn4JyxwnUpEqQy2P8adQGXdZAKvvX8Z)

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Let $v1\_quaterni : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_quatern2 : \iota \Rightarrow \iota$ be given. Let $k26\_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k29\_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $k32\_quaterni : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_quaterni : \iota$ be given. Assume the following.

$$\forall X0.(v1\_quaterni\ X0) \Rightarrow (\forall X1.(v1\_quaterni\ X1) \Rightarrow (k32\_quaterni\ (k29\_quaterni\ X0\ X1) = k32\_quaterni\ (k29\_quaterni\ X1\ X0))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_quaterni\ X0) \Rightarrow (\forall X1.(v1\_quaterni\ X1) \Rightarrow (r1\_xxreal\_0\ (k10\_real\_1\ (k7\_real\_1\ (k3\_quatern2\ (k26\_quaterni\ X0\ X1))\ (k3\_quatern2\ (k29\_quaterni\ X1\ X0)))\ np\_\_2)\ (k7\_real\_1\ (k3\_quatern2\ X0)\ (k3\_quatern2\ X1)))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_quaterni\ X0) \Rightarrow (k3\_quatern2\ X0 = k32\_quaterni\ X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_quaterni\ X0) \wedge (v1\_quaterni\ X1)) \Rightarrow (m1\_subset\_1\ (k29\_quaterni\ X0\ X1)\ k1\_quaterni) \tag{4}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_quaterni) \Rightarrow (v1\_quaterni\ X0) \tag{5}$$

Theorem 1

$$\forall X0.(v1\_quaterni\ X0) \Rightarrow (\forall X1.(v1\_quaterni\ X1) \Rightarrow (r1\_xxreal\_0\ (k10\_real\_1\ (k7\_real\_1\ (k3\_quatern2\ (k26\_quaterni\ X0\ X1))\ (k3\_quatern2\ (k29\_quaterni\ X0\ X1)))\ np\_\_2)\ (k7\_real\_1\ (k3\_quatern2\ X0)\ (k3\_quatern2\ X1))))$$