t81_quaterni (TMR4VWHywET1joEmZytK4px5yKX8HUPxLdE)

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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 $k26\_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k29\_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_quaterni : \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_quaterni\ X0) \Rightarrow (\forall X1.(v1\_quaterni\ X1) \Rightarrow (r1\_xxreal\_0\ (k32\_quaterni\ (k29\_quaterni\ X0\ X1))\ (k2\_xcmplx\_0\ (k32\_quaterni\ X0)\ (k32\_quaterni\ X1)))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\forall X2.(v1\_xreal\_0\ X2) \Rightarrow ((r1\_xxreal\_0\ X0\ (k2\_xcmplx\_0\ X1\ X2)) \Leftrightarrow (r1\_xxreal\_0\ (k6\_xcmplx\_0\ X0\ X1)\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_quaterni\ X0) \Rightarrow (\forall X1.(v1\_quaterni\ X1) \Rightarrow (X0 = k29\_quaterni\ (k26\_quaterni\ X0\ X1)\ X1)) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_quaterni\ X0) \Rightarrow (v1\_xreal\_0\ (k32\_quaterni\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_quaterni\ X0) \wedge (v1\_quaterni\ X1)) \Rightarrow (m1\_subset\_1\ (k26\_quaterni\ X0\ X1)\ k1\_quaterni) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0) \wedge (v1\_xcmplx\_0\ X1)) \Rightarrow (k2\_xcmplx\_0\ X0\ X1 = k2\_xcmplx\_0\ X1\ X0) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (v1\_xcmplx\_0\ X0) \tag{7}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_quaterni) \Rightarrow (v1\_quaterni\ X0) \tag{8}$$

Theorem 1

$$\forall X0.(v1\_quaterni\ X0) \Rightarrow (\forall X1.(v1\_quaterni\ X1) \Rightarrow (r1\_xxreal\_0\ (k6\_xcmplx\_0\ (k32\_quaterni\ X0)\ (k32\_quaterni\ X1))\ (k32\_quaterni\ (k26\_quaterni\ X0\ X1))))$$