

t45\_quaterni  
(TMbbTWdwV6a7f4jcwDiyQiZriKca17megkr)

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Let  $v1\_quaterni : \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k31\_quaterni : \iota \Rightarrow \iota$  be given. Let  $k6\_quaterni : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k17\_quaterni : \iota \Rightarrow \iota$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  be given. Let  $k18\_quaterni : \iota \Rightarrow \iota$  be given. Let  $k19\_quaterni : \iota \Rightarrow \iota$  be given. Let  $k20\_quaterni : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.(v1\_quaterni X0) \Rightarrow (k31\_quaterni X0 = k6\_quaterni (k17\_quaterni \\ X0) (k1\_real\_1 (k18\_quaterni X0)) (k1\_real\_1 (k19\_quaterni X0)) \\ (k1\_real\_1 (k20\_quaterni X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 k1\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1 X2 k1\_numbers) \Rightarrow (\forall X3. \\ (m1\_subset\_1 X3 k1\_numbers) \Rightarrow ((k17\_quaterni (k6\_quaterni X0 X1 \\ X2 X3) = X0) \wedge ((k18\_quaterni (k6\_quaterni X0 X1 X2 X3) = X1) \wedge ((k19\_quaterni \\ (k6\_quaterni X0 X1 X2 X3) = X2) \wedge (k20\_quaterni (k6\_quaterni X0 X1 \\ X2 X3) = X3))))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (k1\_real\_1 X0 = k4\_xcmplx\_0 X0) \tag{3}$$

Assume the following.

$$k4\_xcmplx\_0 k6\_numbers = k6\_numbers \tag{4}$$

Assume the following.

$$k6\_numbers = k6\_quaterni k6\_numbers k6\_numbers k6\_numbers k6\_numbers \tag{5}$$

Assume the following.

$$m1\_subset\_1 k6\_numbers k1\_numbers \tag{6}$$

**Theorem 1**

$$\forall X0. (v1\_quaterni X0) \Rightarrow ((X0 = k6\_numbers) \Rightarrow (k31\_quaterni X0 = k6\_numbers))$$