

# t6\_quatern3 (TMdYZXsZRWDE- HCAZHGCsC8dg3xryrK33bhy)

October 27, 2020

Let  $v1\_quaterni : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k27\_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k11\_quaterni : \iota$  be given. Let  $k6\_quaterni : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k17\_quaterni : \iota \Rightarrow \iota$  be given. Let  $k26\_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k23\_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k25\_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k18\_quaterni : \iota \Rightarrow \iota$  be given. Let  $k1\_xcmplx\_0 : \iota$  be given. Let  $k19\_quaterni : \iota \Rightarrow \iota$  be given. Let  $k20\_quaterni : \iota \Rightarrow \iota$  be given. Let  $k12\_quaterni : \iota$  be given. Let  $k10\_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_quaterni : \iota$  be given. Let  $k9\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.(v1\_quaterni X0) \Rightarrow (X0 = k26\_quaterni (k26\_quaterni \\ (k23\_quaterni (k17\_quaterni X0) (k25\_quaterni (k18\_quaterni \\ X0) k1\_xcmplx\_0)) (k25\_quaterni (k19\_quaterni X0) k11\_quaterni)) \\ (k25\_quaterni (k20\_quaterni X0) k12\_quaterni)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_quaterni X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 k1\_numbers) \Rightarrow \\ ((X0 = X1) \Rightarrow ((k17\_quaterni (k10\_quaterni X0) k11\_quaterni) = k6\_numbers) \wedge \\ ((k18\_quaterni (k10\_quaterni X0) k11\_quaterni) = k6\_numbers) \wedge \\ ((k19\_quaterni (k10\_quaterni X0) k11\_quaterni) = X1) \wedge (k20\_quaterni \\ (k10\_quaterni X0) k11\_quaterni) = k6\_numbers)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_quaterni X0) \wedge (v1\_quaterni X1)) \Rightarrow (k27\_quaterni X0 X1 = k10\_quaterni X0 X1) \quad (3)$$

Assume the following.

$$k11\_quaterni = k4\_quaterni \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1\_quaterni X0) \Rightarrow (\forall X1.(v1\_quaterni X1) \Rightarrow (( \\
& \quad k17\_quaterni (k10\_quaterni X0 X1) = k9\_real\_1 (k9\_real\_1 (k9\_real\_1 \\
& \quad (k8\_real\_1 (k17\_quaterni X0) (k17\_quaterni X1)) (k8\_real\_1 (k18\_quaterni \\
& \quad X0) (k18\_quaterni X1))) (k8\_real\_1 (k19\_quaterni X0) (k19\_quaterni \\
& \quad X1))) (k8\_real\_1 (k20\_quaterni X0) (k20\_quaterni X1))) \wedge ((k18\_quaterni \\
& \quad (k10\_quaterni X0 X1) = k9\_real\_1 (k7\_real\_1 (k7\_real\_1 (k8\_real\_1 \\
& \quad (k17\_quaterni X0) (k18\_quaterni X1)) (k8\_real\_1 (k18\_quaterni \\
& \quad X0) (k17\_quaterni X1))) (k8\_real\_1 (k19\_quaterni X0) (k20\_quaterni \\
& \quad X1))) (k8\_real\_1 (k20\_quaterni X0) (k19\_quaterni X1))) \wedge ((k19\_quaterni \\
& \quad (k10\_quaterni X0 X1) = k9\_real\_1 (k7\_real\_1 (k7\_real\_1 (k8\_real\_1 \\
& \quad (k17\_quaterni X0) (k19\_quaterni X1)) (k8\_real\_1 (k19\_quaterni \\
& \quad X0) (k17\_quaterni X1))) (k8\_real\_1 (k20\_quaterni X0) (k18\_quaterni \\
& \quad X1))) (k8\_real\_1 (k18\_quaterni X0) (k20\_quaterni X1))) \wedge (k20\_quaterni \\
& \quad (k10\_quaterni X0 X1) = k9\_real\_1 (k7\_real\_1 (k7\_real\_1 (k8\_real\_1 \\
& \quad (k17\_quaterni X0) (k20\_quaterni X1)) (k8\_real\_1 (k20\_quaterni \\
& \quad X0) (k17\_quaterni X1))) (k8\_real\_1 (k18\_quaterni X0) (k19\_quaterni \\
& \quad X1))) (k8\_real\_1 (k19\_quaterni X0) (k18\_quaterni X1))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1\_quaterni X0) \Rightarrow (\forall X1.(v1\_quaterni X1) \Rightarrow (k10\_quaterni \\
& \quad X0 X1 = k6\_quaterni (k9\_real\_1 (k9\_real\_1 (k9\_real\_1 (k8\_real\_1 \\
& \quad (k17\_quaterni X0) (k17\_quaterni X1)) (k8\_real\_1 (k18\_quaterni \\
& \quad X0) (k18\_quaterni X1))) (k8\_real\_1 (k19\_quaterni X0) (k19\_quaterni \\
& \quad X1))) (k8\_real\_1 (k20\_quaterni X0) (k20\_quaterni X1))) (k9\_real\_1 \\
& \quad (k7\_real\_1 (k7\_real\_1 (k8\_real\_1 (k17\_quaterni X0) (k18\_quaterni \\
& \quad X1)) (k8\_real\_1 (k18\_quaterni X0) (k17\_quaterni X1))) (k8\_real\_1 \\
& \quad (k19\_quaterni X0) (k20\_quaterni X1))) (k8\_real\_1 (k20\_quaterni \\
& \quad X0) (k19\_quaterni X1))) (k9\_real\_1 (k7\_real\_1 (k7\_real\_1 (k8\_real\_1 \\
& \quad (k17\_quaterni X0) (k19\_quaterni X1)) (k8\_real\_1 (k19\_quaterni \\
& \quad X0) (k17\_quaterni X1))) (k8\_real\_1 (k20\_quaterni X0) (k18\_quaterni \\
& \quad X1))) (k8\_real\_1 (k18\_quaterni X0) (k20\_quaterni X1))) (k9\_real\_1 \\
& \quad (k7\_real\_1 (k7\_real\_1 (k8\_real\_1 (k17\_quaterni X0) (k20\_quaterni \\
& \quad X1)) (k8\_real\_1 (k20\_quaterni X0) (k17\_quaterni X1))) (k8\_real\_1 \\
& \quad (k18\_quaterni X0) (k19\_quaterni X1))) (k8\_real\_1 (k19\_quaterni \\
& \quad X0) (k18\_quaterni X1))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1\_quaterni X0) \Rightarrow ((m1\_subset\_1 X0 k1\_numbers) \Rightarrow (( \\
& \quad X0 = k17\_quaterni X0) \wedge ((k18\_quaterni X0 = k6\_numbers) \wedge ((k19\_quaterni \\
& \quad X0 = k6\_numbers) \wedge (k20\_quaterni X0 = k6\_numbers))))))
\end{aligned} \tag{7}$$

Assume the following.

$$v1\_quaterni k4\_quaterni \tag{8}$$

**Theorem 1**

$$\forall X0.(v1\_quaterni\ X0) \Rightarrow ((m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (k27\_quaterni\ X0\ k11\_quaterni = k6\_quaterni\ k6\_numbers\ k6\_numbers\ (k17\_quaterni\ X0)\ k6\_numbers))$$