

# t53\_quatern3

(TMHUsBpJo3eoKeZv9Ws3zj4c9cNCSbvcysw)

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Let  $v1\_quaterni : \iota \Rightarrow o$  be given. Let  $k28\_quaterni : \iota \Rightarrow \iota$  be given. Let  $k29\_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k26\_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_quaterni : \iota$  be given. Assume the following.

$$\forall X0.(v1\_quaterni X0) \Rightarrow (\forall X1.(v1\_quaterni X1) \Rightarrow (k28\_quaterni (k26\_quaterni X0 X1) = k29\_quaterni (k28\_quaterni X0) X1)) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_quaterni X0) \Rightarrow (\forall X1.(v1\_quaterni X1) \Rightarrow (k29\_quaterni X0 X1 = k28\_quaterni (k29\_quaterni X1 X0))) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_quaterni X0) \Rightarrow (\forall X1.(v1\_quaterni X1) \Rightarrow (X0 = k26\_quaterni (k29\_quaterni X0 X1) X1)) \quad (3)$$

Assume the following.

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

Assume the following.

$$\forall X0.(v1\_quaterni X0) \Rightarrow (m1\_subset\_1 (k28\_quaterni X0) k1\_quaterni) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_quaterni X0) \wedge (v1\_quaterni X1)) \Rightarrow (k26\_quaterni X0 X1 = k26\_quaterni X1 X0) \quad (6)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_quaterni) \Rightarrow (v1\_quaterni X0) \quad (7)$$

**Theorem 1**

$$\forall X0.(v1\_quaterni X0) \Rightarrow (\forall X1.(v1\_quaterni X1) \Rightarrow (k28\_quaterni (k29\_quaterni X0 X1) = k26\_quaterni (k28\_quaterni X0) X1))$$