

t52_quatern2 (TMNwqwdjzbjP- soZnDpnZR9jaEnMaPkMuDa8)

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Let $v1_quaterni : \iota \Rightarrow o$ be given. Let $k18_quatern2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k17_quaterni : \iota \Rightarrow \iota$ be given. Let $k27_quaterni : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k31_quaterni : \iota \Rightarrow \iota$ be given. Let $k7_real.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_square.1 : \iota \Rightarrow \iota$ 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 $k3_quatern2 : \iota \Rightarrow \iota$ be given. Let $k21_quaterni : \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_quaterni X0) \Rightarrow & ((k17_quaterni (k27_quaterni X0 \\ & (k31_quaterni X0)) = k7_real.1 (k7_real.1 (k7_real.1 (k5_square.1 \\ & (k17_quaterni X0)) (k5_square.1 (k18_quaterni X0))) (k5_square.1 \\ & (k19_quaterni X0))) (k5_square.1 (k20_quaterni X0))) \wedge ((k18_quaterni \\ & (k27_quaterni X0 (k31_quaterni X0)) = k6_numbers) \wedge ((k19_quaterni \\ & (k27_quaterni X0 (k31_quaterni X0)) = k6_numbers) \wedge (k20_quaterni \\ & (k27_quaterni X0 (k31_quaterni X0)) = k6_numbers)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_quaterni X0) \Rightarrow & ((k17_quaterni (k18_quatern2 X0 \\ & X0) = k5_square.1 (k3_quatern2 X0)) \wedge ((k18_quaterni (k18_quatern2 \\ & X0 X0) = k6_numbers) \wedge ((k19_quaterni (k18_quatern2 X0 X0) = k6_numbers) \wedge \\ & (k19_quaterni (k18_quatern2 X0 X0) = k6_numbers)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (k18_quatern2 X0 X0 = k5_square.1 (k3_quatern2 X0)) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_quaterni X0) \Rightarrow & ((k7_real.1 (k7_real.1 (k7_real.1 \\ & (k5_square.1 (k17_quaterni X0)) (k5_square.1 (k18_quaterni X0))) \\ & (k5_square.1 (k19_quaterni X0))) (k5_square.1 (k20_quaterni \\ & X0)) = k6_numbers) \Rightarrow (X0 = k21_quaterni)) \end{aligned} \quad (4)$$

Assume the following.

$$k21_quaterni = k6_numbers \quad (5)$$

Assume the following.

$$\forall X0.(v1_quaterni X0) \Rightarrow (\forall X1.(v1_quaterni X1) \Rightarrow (k18_quatern2 X0 X1 = k27_quaterni X0 (k31_quaterni X1))) \quad (6)$$

Theorem 1

$$\forall X0.(v1_quaterni X0) \Rightarrow ((k18_quatern2 X0 X0 = k6_numbers) \Rightarrow (X0 = k6_numbers))$$