

t59_xxreal_3 (TMSfHGmucvpYQaSeSJ-
CLz38duHwmQFd9DvV)

October 27, 2020

Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k2_xxreal_0 : \iota$ be given. Let $k1_xxreal_0 : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xxreal_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow ((r1_xxreal_0 X0 k2_xxreal_0) \Rightarrow (X0 = k2_xxreal_0)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow (((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow ((X2 = \\ & k1_xxreal_3 X0 X1) \Leftrightarrow (\exists X3.(v1_xcmplx_0 X3) \wedge (\exists X4. \\ & (v1_xcmplx_0 X4) \wedge ((X0 = X3) \wedge ((X1 = X4) \wedge (X2 = k2_xcmplx_0 X3 X4)))))) \wedge \\ & (((((X0 = k1_xxreal_0) \wedge (X1 \neq k2_xxreal_0)) \vee ((X1 = k1_xxreal_0) \wedge \\ & (X0 \neq k2_xxreal_0))) \Rightarrow ((X2 = k1_xxreal_3 X0 X1) \Leftrightarrow (X2 = k1_xxreal_0))) \wedge \\ & (((((X0 = k2_xxreal_0) \wedge (X1 \neq k1_xxreal_0)) \vee ((X1 = k2_xxreal_0) \wedge \\ & (X0 \neq k1_xxreal_0))) \Rightarrow ((X2 = k1_xxreal_3 X0 X1) \Leftrightarrow (X2 = k2_xxreal_0))) \wedge \\ & (\neg(\neg(v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \wedge ((\neg(X0 = k1_xxreal_0) \wedge \\ & (X1 \neq k2_xxreal_0)) \wedge ((\neg(X1 = k1_xxreal_0) \wedge (X0 \neq k2_xxreal_0)) \wedge \\ & ((\neg(X0 = k2_xxreal_0) \wedge (X1 \neq k1_xxreal_0)) \wedge ((\neg(X1 = k2_xxreal_0) \wedge \\ & (X0 \neq k1_xxreal_0)) \wedge (\neg(X2 = k1_xxreal_3 X0 X1) \Leftrightarrow (X2 = k6_numbers)))))))))) \quad (2) \end{aligned}$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow (\neg(\neg(X0 = k2_xxreal_0) \wedge (X1 = k2_xxreal_0)) \wedge \\ & ((\neg(X1 = k2_xxreal_0) \wedge (X2 = k1_xxreal_0)) \wedge ((r1_xxreal_0 X0 (k1_xxreal_3 \\ & X2 X1)) \wedge (X1 = k2_xxreal_0)))))) \end{aligned}$$