

t5_xcplx_1 (TMU-
CrTJMbFGh7JYPksqQFTqeoemeWongLF9)

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Let $v1_xcplx_0 : \iota \Rightarrow o$ be given. Let $k3_xcplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $np_1 : \iota$ be given. Let $k5_xcplx_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xcplx_0 X0) \Rightarrow (\forall X1.(v1_xcplx_0 X1) \Rightarrow (\forall X2. \\ (v1_xcplx_0 X2) \Rightarrow (k3_xcplx_0 X0 (k3_xcplx_0 X1 X2) = k3_xcplx_0 \\ (k3_xcplx_0 X0 X1) X2))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v1_xcplx_0 X0) \Rightarrow (k3_xcplx_0 np_1 X0 = X0) \quad (3)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (4)$$

Assume the following.

$$\forall X0.(v1_xcplx_0 X0) \Rightarrow (k5_xcplx_0 (k5_xcplx_0 X0) = X0) \quad (5)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v1_xcplx_0 X0)) \Rightarrow ((\neg v1_xboole_0 \\ (k5_xcplx_0 X0)) \wedge (v1_xcplx_0 (k5_xcplx_0 X0))) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xcplx_0 X0) \Rightarrow (\forall X1.(v1_xcplx_0 X1) \Rightarrow ((\\ (X0 \neq k6_numbers) \Rightarrow ((X1 = k5_xcplx_0 X0) \Leftrightarrow (k3_xcplx_0 X0 X1 = np_1))) \wedge \\ ((X0 = k6_numbers) \Rightarrow ((X1 = k5_xcplx_0 X0) \Leftrightarrow (X1 = k6_numbers)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcplx_0 X0) \wedge (v1_xcplx_0 X1)) \Rightarrow (\\ k3_xcplx_0 X0 X1 = k3_xcplx_0 X1 X0) \quad (8)$$

Theorem 1

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (\forall X2.(v1_xcmplx_0 X2) \Rightarrow ((k3_xcmplx_0 X1 X0 = k3_xcmplx_0 X2 X0) \Rightarrow ((X0 = k6_numbers) \vee (X1 = X2)))))$$