

l51_int_4

(TMUYt5GQukXSnM4NpYbJCgpTGcVVkt8BmED)

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Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $r1_int_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_int_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_int_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_int_1 X0) \Rightarrow (\forall X1.(v1_int_1 X1) \Rightarrow ((X0 \neq k6_numbers) \Rightarrow \\ (X1 = k2_xcmplx_0 (k3_xcmplx_0 (k5_int_1 X1 X0) X0) (k6_int_1 X1 \\ X0)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(v1_int_1 X0) \Rightarrow ((r1_int_1 k6_numbers X0) \Leftrightarrow (X0 = k6_numbers)) \tag{2}$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k3_xcmplx_0 X0 k6_numbers = k6_numbers) \tag{3}$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k2_xcmplx_0 X0 k6_numbers = X0) \tag{4}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{5}$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_int_1 X0) \Rightarrow (\forall X1.(v1_int_1 X1) \Rightarrow (((r1_int_1 \\ X0 X1) \Rightarrow (k6_int_1 X1 X0 = k6_numbers)) \wedge ((k6_int_1 X1 X0 = k6_numbers) \Rightarrow \\ ((X0 = k6_numbers) \vee (r1_int_1 X0 X1)))))) \end{aligned} \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((v1_int_1 X0) \wedge (v1_int_1 X1)) \Rightarrow (v1_int_1 \\ (k3_xcmplx_0 X0 X1)) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((v1_int_1 X0)\wedge(v1_int_1 X1))\Rightarrow(v1_int_1 (k5_int_1 X0 X1)) \quad (8)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xcmplx_0 X0) \quad (9)$$

Assume the following.

$$\forall X0.(v1_int_1 X0)\Rightarrow(v1_xreal_0 X0) \quad (10)$$

Theorem 1

$$\forall X0.(v1_int_1 X0)\Rightarrow(\forall X1.(v1_int_1 X1)\Rightarrow((r1_int_1 X0 X1)\Rightarrow(X1 = k3_xcmplx_0 (k5_int_1 X1 X0) X0)))$$