

l19_int_1

(TMaFQ94Q5pMLVhT8AKERQWZbs2CKwwjWA3c)

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Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k5_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_int_1 X0) \Rightarrow (\forall X1.(v1_int_1 X1) \Rightarrow ((r1_xreal_0 X0 X1) \Rightarrow (k6_xcmplx_0 X1 X0 \in k5_numbers))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (k6_xcmplx_0 X0 (k6_xcmplx_0 X0 X1) = X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (m1_subset_1 X1 k1_numbers)) \Rightarrow (k5_real_1 X0 X1 = k6_xcmplx_0 X0 X1) \quad (6)$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (7)$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0) \Leftrightarrow (\forall X1. \neg X1 \in X0) \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 \ X0) \Rightarrow ((m1_subset_1 \ X1 \ X0) \Leftrightarrow \\ (X1 \in X0))) \wedge ((v1_xboole_0 \ X0) \Rightarrow ((m1_subset_1 \ X1 \ X0) \Leftrightarrow (v1_xboole_0 \\ X1))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(v1_xreal_0 \ X0) \Rightarrow (v1_xcmplx_0 \ X0) \quad (10)$$

Assume the following.

$$\forall X0.(v1_int_1 \ X0) \Rightarrow (v1_xreal_0 \ X0) \quad (11)$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)) \Rightarrow (v1_xboole_0 \ X1)) \quad (12)$$

Theorem 1

$$\begin{aligned} \forall X0.(v1_int_1 \ X0) \Rightarrow (\forall X1.(v1_int_1 \ X1) \Rightarrow (\neg (r1_xxreal_0 \\ X0 \ X1) \wedge (\forall X2.(m2_subset_1 \ X2 \ k1_numbers \ k5_numbers) \Rightarrow (k5_real_1 \\ X1 \ X2 \neq X0)))) \end{aligned}$$