

t1_arithm

(TMaMs1pJaielmfEw7ykbZQEeqxp6HHCxHmMb)

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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. 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 $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k1_arytm_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k5_arytm_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (2)$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \quad (3)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1. (m1_subset_1 X1 k1_numbers) \Rightarrow ((X1 = k6_numbers) \Rightarrow (k1_arytm_0 X0 X1 = X0))) \quad (4)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (5)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (6)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (7)$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 \ k1_numbers) \Rightarrow (((X1 = k6_numbers) \Rightarrow (k5_arytm_0 \ X0 \ X1 = X0)) \wedge ((\\ X1 \neq k6_numbers) \Rightarrow (k5_arytm_0 \ X0 \ X1 = k5_funct_4 \ k1_numbers \ k6_numbers \\ np_1 \ X0 \ X1)))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xcmplx_0 \ X0) \Rightarrow (\forall X1.(v1_xcmplx_0 \ X1) \Rightarrow (\forall X2. \\ (X2 = k2_xcmplx_0 \ X0 \ X1) \Leftrightarrow (\exists X3.(m1_subset_1 \ X3 \ k1_numbers) \wedge \\ (\exists X4.(m1_subset_1 \ X4 \ k1_numbers) \wedge (\exists X5.(m1_subset_1 \\ X5 \ k1_numbers) \wedge (\exists X6.(m1_subset_1 \ X6 \ k1_numbers) \wedge ((X0 = \\ k5_arytm_0 \ X3 \ X4) \wedge ((X1 = k5_arytm_0 \ X5 \ X6) \wedge (X2 = k5_arytm_0 \ (k1_arytm_0 \\ X3 \ X5) \ (k1_arytm_0 \ X4 \ X6)))))))))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (v1_xcmplx_0 \ X0) \quad (11)$$

Theorem 1 $\forall X0.(v1_xcmplx_0 \ X0) \Rightarrow (k2_xcmplx_0 \ X0 \ k6_numbers = X0).$