

t2_arithm (TM-
PvhAr63DHa8XZbihkRfrxDAvvjMVVMAz5)

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Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_numbers : \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k5_arytm_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ 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 $k2_arytm_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_arytm_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k3_arytm_0 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k5_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\forall X0.(m1_subset_1 X0 k2_numbers) \Rightarrow (\exists X1.(m1_subset_1 X1 k1_numbers) \wedge (\exists X2.(m1_subset_1 X2 k1_numbers) \wedge (X0 = k5_arytm_0 X1 X2))) \quad (1)$$

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.

$$\forall X0.\forall X1.(m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (4)$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \quad (5)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow ((X1 = k6_numbers) \Rightarrow (k2_arytm_0 X0 X1 = k6_numbers))) \quad (6)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow ((X1 = k6_numbers) \Rightarrow (k1_arytm_0 X0 X1 = X0))) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.r1_tarski X0 X0 \quad (8)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (9)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (10)$$

Assume the following.

$$k3_arytm_0 k6_numbers = k6_numbers \quad (11)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (12)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers) \wedge (m1_subset_1 X1 k1_numbers)) \Rightarrow (m1_subset_1 (k5_arytm_0 X0 X1) k2_numbers) \quad (14)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (\forall X2. \\ (X2 = k3_xcmplx_0 X0 X1) \Leftrightarrow (\exists X3.(m1_subset_1 X3 k1_numbers) \wedge \\ (\exists X4.(m1_subset_1 X4 k1_numbers) \wedge (\exists X5.(m1_subset_1 \\ X5 k1_numbers) \wedge (\exists X6.(m1_subset_1 X6 k1_numbers) \wedge ((X0 = \\ k5_arytm_0 X3 X4) \wedge ((X1 = k5_arytm_0 X5 X6) \wedge (X2 = k5_arytm_0 (k1_arytm_0 \\ (k2_arytm_0 X3 X5) (k3_arytm_0 (k2_arytm_0 X4 X6)))) (k1_arytm_0 \\ (k2_arytm_0 X3 X6) (k2_arytm_0 X4 X5)))))))))) \quad (15) \end{aligned}$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k1_numbers) \Rightarrow (((X1 = k6_numbers) \Rightarrow (k5_arytm_0 X0 X1 = X0)) \wedge ((\\ X1 \neq k6_numbers) \Rightarrow (k5_arytm_0 X0 X1 = k5_funct_4 k1_numbers k6_numbers \\ np_1 X0 X1)))) \quad (16) \end{aligned}$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Leftrightarrow (X0 \in k2_numbers) \quad (17)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k2_numbers) \Rightarrow (v1_xcmplx_0 X0) \quad (18)$$

Theorem 1 $\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k3_xcmplx_0 X0 k6_numbers = k6_numbers).$