

t22_arytm_0
(TMNvrYahpFpy7GWV7uxvtTQRkatbjFpys4d)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k4_arytm_0 : \iota \Rightarrow \iota$ be given. Let $k2_arytm_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow ((X1 \neq k6_numbers) \Rightarrow (k2_arytm_0 (k2_arytm_0 X0 X1) (k4_arytm_0 X1) = X0))) \quad (1)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow ((X1 = k6_numbers) \Rightarrow (k2_arytm_0 X0 X1 = k6_numbers))) \quad (2)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (k4_arytm_0 (k4_arytm_0 X0) = X0) \quad (3)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (m1_subset_1 (k4_arytm_0 X0) k1_numbers) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers) \wedge (m1_subset_1 X1 k1_numbers)) \Rightarrow (m1_subset_1 (k2_arytm_0 X0 X1) k1_numbers) \quad (5)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow (((X0 \neq k6_numbers) \Rightarrow ((X1 = k4_arytm_0 X0) \Leftrightarrow (k2_arytm_0 X0 X1 = np_1))) \wedge ((X0 = k6_numbers) \Rightarrow ((X1 = k4_arytm_0 X0) \Leftrightarrow (X1 = k6_numbers))))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers) \wedge (m1_subset_1 X1 k1_numbers)) \Rightarrow (k2_arytm_0 X0 X1 = k2_arytm_0 X1 X0) \quad (7)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow (k4_arytm_0 (k2_arytm_0 X0 X1) = k2_arytm_0 (k4_arytm_0 X0) (k4_arytm_0 X1)))$$