

t25_arytm_0 (TMKrJAmRj-
GRF8866fYYU4FXAWycm4dT7pyZ)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k3_arytm_0 : \iota \Rightarrow \iota$ be given. Let $k1_arytm_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $c2_arytm_0 : \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k1_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow (k1_arytm_0 \\ X0 (k1_arytm_0 X1 X2) = k1_arytm_0 (k1_arytm_0 X0 X1) X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k1_numbers) \Rightarrow ((X1 = k6_numbers) \Rightarrow (k1_arytm_0 X0 X1 = X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (m1_subset_1 (k3_arytm_0 \\ X0) k1_numbers) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((m1_subset_1 X0 k1_numbers) \wedge (m1_subset_1 \\ X1 k1_numbers)) \Rightarrow (m1_subset_1 (k1_arytm_0 X0 X1) k1_numbers) \end{aligned} \quad (4)$$

Assume the following.

$$m1_subset_1 c2_arytm_0 k1_numbers \quad (5)$$

Assume the following.

$$c2_arytm_0 = k6_numbers \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k1_numbers) \Rightarrow ((X1 = k3_arytm_0 X0) \Leftrightarrow (k1_arytm_0 X0 X1 = k6_numbers))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 X0 k1_numbers) \wedge (m1_subset_1 X1 k1_numbers)) \Rightarrow (k1_arytm_0 X0 X1 = k1_arytm_0 X1 X0) \quad (8)$$

Theorem 1

$$\forall X0. (m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1. (m1_subset_1 X1 k1_numbers) \Rightarrow (k3_arytm_0 (k1_arytm_0 X0 X1) = k1_arytm_0 (k3_arytm_0 X0) (k3_arytm_0 X1)))$$