

l32_arytm_2
(TMQucidQt1aUV9Retqeugt7R2WyafhxNjv7)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_arytm_2 : \iota$ be given. Let $k3_arytm_2 : \iota \Rightarrow \iota$ be given. Let $r1_arytm_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m1_subset_1 X0 k2_arytm_2) \Rightarrow (\forall X1.(m1_subset_1 X1 k2_arytm_2) \Rightarrow ((r1_arytm_2 X0 X1) \wedge (r1_arytm_2 X1 X0)) \Rightarrow (X0 = X1)) \quad (1)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k2_arytm_2) \Rightarrow (\forall X1.(m1_subset_1 X1 k2_arytm_2) \Rightarrow ((r1_tarski (k3_arytm_2 X0) (k3_arytm_2 X1)) \Rightarrow (r1_arytm_2 X0 X1))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1) \Leftrightarrow ((r1_tarski X0 X1) \wedge (r1_tarski X1 X0)) \quad (3)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k2_arytm_2) \Rightarrow (\forall X1.(m1_subset_1 X1 k2_arytm_2) \Rightarrow ((k3_arytm_2 X0 = k3_arytm_2 X1) \Rightarrow (X0 = X1)))$$