

t2_arytm_3 (TMRoTgwzB- jHM8iw4TAYpqz2hEK8vvQdDJ98)

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Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_arytm_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k11_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_ordinal2 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow ((k11_ordinal2 X0 X1 = np_1) \Rightarrow ((X0 = np_1) \wedge (X1 = np_1)))) \quad (1)$$

Assume the following.

$$\forall X0 : \iota \Rightarrow \iota. \forall X1. \exists X2. ((v5_ordinal1 X2) \wedge ((v1_relat_1 X2) \wedge ((v1_funct_1 X2) \wedge (v1_ordinal2 X2)))) \wedge ((k9_xtuple_0 X2 = X1) \wedge (\forall X3.(v3_ordinal1 X3) \Rightarrow ((X3 \in X1) \Rightarrow (k1_funct_1 X2 X3 = X0 X3)))) \quad (2)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v5_ordinal1 X0))) \Rightarrow (v3_ordinal1 (k9_xtuple_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow ((r1_arytm_3 X0 X1) \Leftrightarrow (\forall X2.(v3_ordinal1 X2) \Rightarrow (\forall X3.(v3_ordinal1 X3) \Rightarrow (\forall X4.(v3_ordinal1 X4) \Rightarrow (((X0 = k11_ordinal2 X2 X3) \wedge (X1 = k11_ordinal2 X2 X4)) \Rightarrow (X2 = np_1)))))))) \quad (4)$$

Theorem 1 $\forall X0.(v3_ordinal1 X0) \Rightarrow (r1_arytm_3 np_1 X0).$