

t9_arytm_3
(TMWrodnHtZUyZyjtnvsrPufoRhbdtdQZUCd9)

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Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r2_arytm_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $np_1 : \iota$ be given. Let $k11_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_ordinal1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (k11_ordinal2 X0 k1_xboole_0 = k1_xboole_0) \quad (2)$$

Assume the following.

$$np_1 = k1_ordinal1 k1_xboole_0 \quad (3)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow ((\neg v1_xboole_0 (k1_ordinal1 X0)) \wedge (v3_ordinal1 (k1_ordinal1 X0))) \quad (4)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (5)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow ((r2_arytm_3 X0 X1) \Leftrightarrow (\exists X2.(v3_ordinal1 X2) \wedge (X1 = k11_ordinal2 X0 X2)))) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v3_ordinal1 X0) \quad (7)$$

Theorem 1

$$\forall X0.((v3_ordinal1 X0) \wedge (v7_ordinal1 X0)) \Rightarrow ((r2_arytm_3 X0 k1_xboole_0) \wedge (r2_arytm_3 np_1 X0))$$