

t50_card_3
(TMW9ksYJsQNtr6tS5ekGGaqKaHfG6wwZ5ZG)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k8_card_3 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (2)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v1_xboole_0 (k9_xtuple_0 X0)) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.(X1 = \\ k8_card_3 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.((v1_relat_1 \\ X3) \wedge (v1_funct_1 X3)) \wedge ((X2 = X3) \wedge (r1_tarski (k9_xtuple_0 X3) \\ (k9_xtuple_0 X0)) \wedge (\forall X4.(X4 \in k9_xtuple_0 X3) \Rightarrow (k1_funct_1 \\ X3 X4 \in k1_funct_1 X0 X4))))))) \quad (4) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Leftrightarrow (\forall X1.\neg X1 \in X0) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v1_relat_1 X0) \quad (7)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v1_funct_1 X0) \quad (8)$$

Theorem 1

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (k1_xboole_0 \in k8_card_3 X0)$$