

t79_classes1

(TMHbjyAt8A4nhzhGt4UqrwDoAh7dCa2GtHE)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $k10_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_classes1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. (\neg X1 \in k10_xtuple_0 X0) \Rightarrow (k10_relat_1 X0 X1 = k1_xboole_0)) \quad (3)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. (v1_relat_1 X1) \Rightarrow ((r2_classes1 X0 X1) \Leftrightarrow (\forall X2. k1_card_1 (k10_relat_1 X0 X2) = k1_card_1 (k10_relat_1 X1 X2)))) \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow \\ & (((r1_tarski (k10_xtuple_0 X1) X0) \wedge ((r1_tarski (k10_xtuple_0 X2) X0) \wedge (\forall X3. (m1_subset_1 X3 X0) \Rightarrow (k1_card_1 (k10_relat_1 X1 X3) = k1_card_1 (k10_relat_1 X2 X3)))))) \Rightarrow (r2_classes1 X1 X2)))) \end{aligned}$$