

t32_cohsp_1 (TMTGkCzMnqocigFqUe- mEYw6iYQgTGvMLfJv)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v8_cohsp_1 : \iota \Rightarrow o$ be given. Let $v1_classes1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_cohsp_1 : \iota \Rightarrow \iota$ be given. Let $k5_cohsp_1 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_cohsp_1 : \iota \Rightarrow o$ be given. Let $v6_cohsp_1 : \iota \Rightarrow o$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. \\ & (k4_tarski X1 X2 \in k5_cohsp_1 X0) \Leftrightarrow ((v1_finset_1 X1) \wedge ((X1 \in k9_xtuple_0 \\ & X0) \wedge (X2 \in k1_funct_1 X0 X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v1_classes1 \\ & (k9_xtuple_0 X0)) \Rightarrow ((v8_cohsp_1 X0) \Leftrightarrow ((v3_cohsp_1 (k9_xtuple_0 \\ & X0)) \wedge ((v6_cohsp_1 X0) \wedge (\forall X1. \forall X2. \neg (X1 \in k9_xtuple_0 \\ & X0) \wedge ((X2 \in k1_funct_1 X0 X1) \wedge (\forall X3. \neg (v1_finset_1 X3) \wedge ((\\ & r1_tarski X3 X1) \wedge (X2 \in k1_funct_1 X0 X3)))))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (v1_relat_1 (k7_cohsp_1 X0)) \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. k4_tarski X0 X1 = k2_tarski (k2_tarski X0 X1) (k1_tarski X0) \tag{4}$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. \forall X3. (k4_tarski X2 X3 \in X0) \Rightarrow (k4_tarski X2 X3 \in X1))) \tag{5}$$

Assume the following.

$$\forall X0.(v1_classes1\ X0) \Leftrightarrow (\forall X1.\forall X2.((X1 \in X0) \wedge (r1_tarski\ X2\ X1)) \Rightarrow (X2 \in X0)) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1\ X0) \wedge (v1_funct_1\ X0)) \Rightarrow (\forall X1.(X1 = \\ k7_cohsp_1\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.\exists X4.(\\ X2 = k4_tarski\ X3\ X4) \wedge ((X3 \in k9_xtuple_0\ X0) \wedge ((X4 \in k1_funct_1\ X0 \\ X3) \wedge (\forall X5.((X5 \in k9_xtuple_0\ X0) \wedge ((r1_tarski\ X5\ X3) \wedge (X4 \in \\ k1_funct_1\ X0\ X5)) \Rightarrow (X3 = X5))))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.k2_tarski\ X0\ X1 = k2_tarski\ X1\ X0 \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_relat_1\ X0) \wedge ((v1_funct_1\ X0) \wedge (v8_cohsp_1\ X0))) \Rightarrow \\ ((v1_classes1\ (k9_xtuple_0\ X0)) \Rightarrow (r1_tarski\ (k7_cohsp_1\ X0)\ (\\ k5_cohsp_1\ X0))) \end{aligned}$$