

t90_funct_7 (TMTzKuUauhfKuvCVheMb- jpYAEDzXXrsBEBQ)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_funct_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. r1_tarski X0 (k2_xboole_0 X0 X1) \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow (k5_relat_1 X2 (k2_xboole_0 X0 X1) = k2_xboole_0 (k5_relat_1 X2 X0) (k5_relat_1 X2 X1)) \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow ((r1_tarski (k9_xtuple_0 X1) X0) \Rightarrow (k5_relat_1 X1 X0 = X1)) \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. k2_xboole_0 X0 (k4_xboole_0 X1 X0) = k2_xboole_0 X0 X1 \tag{4}$$

Assume the following.

$$\forall X0. \forall X1. k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \tag{5}$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. (r1_funct_7 X0 X1 X2) \Leftrightarrow (k5_relat_1 X0 (k6_subset_1 (k9_xtuple_0 X0) X2) = k5_relat_1 X1 (k6_subset_1 (k9_xtuple_0 X1) X2)))) \tag{6}$$

Assume the following.

$$\forall X0. \forall X1. k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \tag{7}$$

Theorem 1

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2.((k5_relat_1 X0 X2 = k5_relat_1 X1 X2) \wedge (r1_funct_7 X0 X1 X2)) \Rightarrow (X0 = X1)))$$