

t2_partfun3

(TMHckG9NCd9xAy9JMdBpJG8XwffXGAvfHNm)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v2_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k4_rfunct_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_valued_0 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_xcmplx_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \neg(v1_xboole_0 X0) \wedge ((X0 \neq X1) \wedge (v1_xboole_0 X1)) \quad (1)$$

Assume the following.

$$\forall X0. k4_xboole_0 X0 k1_xboole_0 = X0 \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \quad (3)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v2_relat_1 X0) \wedge (v1_funct_1 X0))) \Rightarrow (v1_xboole_0 (k8_relat_1 X0 (k1_tarski k6_numbers))) \quad (4)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (5)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_valued_0 X0))) \Rightarrow ((v1_relat_1 (k4_rfunct_1 X0)) \wedge (v1_funct_1 (k4_rfunct_1 X0))) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_valued_0 X0))) \Rightarrow \\ & (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((X1 = k4_rfunct_1 X0) \Leftrightarrow ((k9_xtuple_0 X1 = k6_subset_1 (k9_xtuple_0 X0) (k8_relat_1 X0 (k1_tarski k6_numbers))) \wedge (\forall X2. (X2 \in k9_xtuple_0 X1) \Rightarrow (k1_funct_1 X1 X2 = k5_xcmplx_0 (k1_funct_1 X0 X2)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v3_valued_0 X0)) \Rightarrow ((v1_relat_1 X0) \wedge (v1_valued_0 X0)) \quad (8)$$

Theorem 1

$$\forall X0.((v1_relat_1 X0) \wedge ((v2_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_valued_0 X0)))) \Rightarrow (k9_xtuple_0 (k4_rfunct_1 X0) = k9_xtuple_0 X0)$$