

t26_partfun1
(TMLq4Yeya4ZZj6vtQP8dZZVgMk3Q7M47os)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_relat_1 X3) \wedge \\ & (v1_funct_1 X3)) \Rightarrow (((X0 \in k9_xtuple_0 X3) \wedge ((X0 \in X1) \wedge (k1_funct_1 \\ & X3 X0 \in X2))) \Rightarrow (k1_funct_1 (k3_partfun1 X3 X1 X2) X0 = k1_funct_1 X3 \\ & X0)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_relat_1 X3) \wedge \\ & (v1_funct_1 X3)) \Rightarrow ((X0 \in k1_relset_1 X1 (k3_partfun1 X3 X1 X2)) \Leftrightarrow \\ & ((X0 \in k9_xtuple_0 X3) \wedge ((X0 \in X1) \wedge (k1_funct_1 X3 X0 \in X2)))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_relat_1 X3) \wedge \\ & (v1_funct_1 X3)) \Rightarrow ((X0 \in k1_relset_1 X1 (k3_partfun1 X3 X1 X2)) \Rightarrow \\ & (k1_funct_1 (k3_partfun1 X3 X1 X2) X0 = k1_funct_1 X3 X0)) \end{aligned}$$