

t2_yellow21

(TMcJYxxyh39rUnXGCjj1RbaDoZFPvDCL5Z)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_altcat_1 : \iota \Rightarrow o$ be given. Let $v11_altcat_1 : \iota \Rightarrow o$ be given. Let $v12_altcat_1 : \iota \Rightarrow o$ be given. Let $v3_yellow18 : \iota \Rightarrow o$ be given. Let $v1_yellow21 : \iota \Rightarrow o$ be given. Let $l2_altcat_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k8_altcat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_yellow21 : \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $k6_partfun1 : \iota \Rightarrow \iota$ be given. Let $k3_yellow18 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g1_struct_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow (k3_struct_0 X0 = k6_partfun1 (u1_struct_0 X0)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_altcat_1 X0) \wedge ((v11_altcat_1 \\ & X0) \wedge ((v12_altcat_1 X0) \wedge (l2_altcat_1 X0)))))) \Rightarrow ((v1_yellow21 \\ & X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\exists X2. \\ & (l1_struct_0 X2) \wedge ((X1 = X2) \wedge (k3_yellow18 X0 X1 = u1_struct_0 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.((l1_struct_0 X0) \Rightarrow (k1_yellow21 X0 = X0)) \wedge ((\neg l1_struct_0 X0) \Rightarrow (k1_yellow21 X0 = g1_struct_0 X0)) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_altcat_1 X0) \wedge ((v11_altcat_1 \\ & X0) \wedge ((v12_altcat_1 X0) \wedge (l2_altcat_1 X0)))))) \Rightarrow ((v3_yellow18 \\ & X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (k8_altcat_1 \\ & X0 X1 = k6_partfun1 (k3_yellow18 X0 X1)))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_altcat_1 X0) \wedge ((v11_altcat_1 \\ & X0) \wedge ((v12_altcat_1 X0) \wedge ((v3_yellow18 X0) \wedge ((v1_yellow21 X0) \wedge \\ & (l2_altcat_1 X0)))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & X0)) \Rightarrow (k8_altcat_1 X0 X1 = k3_struct_0 (k1_yellow21 X1))) \end{aligned}$$