

t17_bcialg_5

(TMKpvEv4EzzSmoWjDobDCQUhGtFiESTDpAA)

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Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v8_bcialg_1 : \iota \Rightarrow o$ be given. Let $m1_bcialg_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
 & (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2.(m2_subset_1 \\
 & X2 k1_numbers k5_numbers) \Rightarrow (\forall X3.(m2_subset_1 X3 k1_numbers \\
 & k5_numbers) \Rightarrow (\forall X4.(m1_bcialg_5 X4 X0 X1 X2 X3) \Rightarrow (\forall X5. \\
 & (m2_subset_1 X5 k1_numbers k5_numbers) \Rightarrow (m1_bcialg_5 X4 (k2_nat_1 \\
 & X0 X5) X1 X2 (k2_nat_1 X3 X5)))))))))
 \end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned}
 & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
 & (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2.(m2_subset_1 \\
 & X2 k1_numbers k5_numbers) \Rightarrow (\forall X3.(m2_subset_1 X3 k1_numbers \\
 & k5_numbers) \Rightarrow (\forall X4.((v8_bcialg_1 X4) \wedge (m1_bcialg_5 X4 X0 \\
 & X1 X2 X3)) \Rightarrow (\forall X5.(m2_subset_1 X5 k1_numbers k5_numbers) \Rightarrow \\
 & ((v8_bcialg_1 X4) \wedge (m1_bcialg_5 X4 (k2_nat_1 X0 X5) X1 X2 (k2_nat_1 \\
 & X3 X5)))))))))
 \end{aligned}$$