

t88_borsuk_6 (TMciCa- doShCx3BZLpX3eswM2vMM7DCSE7xX)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v3_funct_1 : \iota \Rightarrow o$ be given. Let $m1_borsuk_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_borsuk_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_borsuk_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_borsuk_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_borsuk_2 X3 \\ & X0 X1 X2) \Rightarrow (\forall X4.((v3_funct_1 X4) \wedge (m1_borsuk_2 X4 X0 X1 X1)) \Rightarrow \\ & ((r1_borsuk_6 X0 X1 X2) \Rightarrow (r3_borsuk_2 X0 X1 X2 (k1_borsuk_2 X0 X1 \\ & X1 X2 X4 X3) X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_borsuk_2 X3 \\ & X0 X1 X2) \Rightarrow (\forall X4.((v3_funct_1 X4) \wedge (m1_borsuk_2 X4 X0 X2 X2)) \Rightarrow \\ & ((r1_borsuk_6 X0 X1 X2) \Rightarrow (r3_borsuk_2 X0 X1 X2 (k1_borsuk_2 X0 X1 \\ & X2 X2 X3 X4) X3)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_borsuk_2 X3 \\ & X0 X1 X2) \Rightarrow (\forall X4.(m1_borsuk_2 X4 X0 X1 X2) \Rightarrow (\forall X5.(m1_borsuk_2 \\ & X5 X0 X1 X2) \Rightarrow (((r3_borsuk_2 X0 X1 X2 X3 X4) \wedge (r3_borsuk_2 X0 X1 X2 X4 \\ & X5)) \Rightarrow (r3_borsuk_2 X0 X1 X2 X3 X5)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.(((\neg v2_struct_0 \\ & X0)\wedge(l1_pre_topc\ X0))\wedge((m1_subset_1\ X1\ (u1_struct_0\ X0))\wedge(\\ & m1_subset_1\ X2\ (u1_struct_0\ X0))\wedge((m1_borsuk_2\ X3\ X0\ X1\ X2)\wedge(m1_borsuk_2 \\ & X4\ X0\ X1\ X2))))\Rightarrow((r3_borsuk_2\ X0\ X1\ X2\ X3\ X4)\Rightarrow(r3_borsuk_2\ X0\ X1 \\ & X2\ X4\ X3)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0\ X0)\wedge((v2_pre_topc \\ & X0)\wedge(l1_pre_topc\ X0))\wedge((m1_subset_1\ X1\ (u1_struct_0\ X0))\wedge(\\ & m1_subset_1\ X2\ (u1_struct_0\ X0))))\Rightarrow(r1_borsuk_6\ X0\ X1\ X1)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & (((\neg v2_struct_0\ X0)\wedge((v2_pre_topc\ X0)\wedge(l1_pre_topc\ X0))\wedge(\\ & (m1_subset_1\ X1\ (u1_struct_0\ X0))\wedge((m1_subset_1\ X2\ (u1_struct_0 \\ & X0))\wedge((m1_subset_1\ X3\ (u1_struct_0\ X0))\wedge((m1_borsuk_2\ X4\ X0\ X1 \\ & X2)\wedge(m1_borsuk_2\ X5\ X0\ X2\ X3))))))\Rightarrow(m1_borsuk_2\ (k1_borsuk_2 \\ & X0\ X1\ X2\ X3\ X4\ X5)\ X0\ X1\ X3)) \end{aligned} \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.(((\neg v2_struct_0\ X0)\wedge((v2_pre_topc\ X0)\wedge(l1_pre_topc \\ & X0)))\Rightarrow(\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ X0))\Rightarrow(\forall X2. \\ & ((v3_funct_1\ X2)\wedge(m1_borsuk_2\ X2\ X0\ X1\ X1))\Rightarrow(\forall X3.((v3_funct_1 \\ & X3)\wedge(m1_borsuk_2\ X3\ X0\ X1\ X1))\Rightarrow(r3_borsuk_2\ X0\ X1\ X1\ X2\ X3)))))) \end{aligned}$$