

t26_pzfmisc1 (TMK-
TYxXPRdqN77EgkMBDpdAcpCVDKEdEJfP)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_pboole : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_pzfmisc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_pzfmisc1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r6_pboole : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 X0) \wedge \\ & \quad (v1_funct_1 X1) \wedge (v1_partfun1 X1 X0))) \Rightarrow (\forall X2. ((v1_relat_1 \\ & \quad X2) \wedge ((v4_relat_1 X2 X0) \wedge ((v1_funct_1 X2) \wedge (v1_partfun1 X2 X0)))) \Rightarrow \\ & ((r2_pboole X0 (k1_pzfmisc1 X0 X1) (k2_pzfmisc1 X0 X1 X2)) \wedge (r2_pboole \\ & \quad X0 (k1_pzfmisc1 X0 X2) (k2_pzfmisc1 X0 X1 X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 X0) \wedge \\ & \quad (v1_funct_1 X1) \wedge (v1_partfun1 X1 X0))) \Rightarrow (\forall X2. ((v1_relat_1 \\ & \quad X2) \wedge ((v4_relat_1 X2 X0) \wedge ((v1_funct_1 X2) \wedge (v1_partfun1 X2 X0)))) \Rightarrow \\ & \quad (\forall X3. ((v1_relat_1 X3) \wedge ((v4_relat_1 X3 X0) \wedge ((v1_funct_1 \\ & \quad X3) \wedge (v1_partfun1 X3 X0)))) \Rightarrow (((r2_pboole X0 X1 X2) \wedge (r2_pboole \\ & \quad X0 X2 X3)) \Rightarrow (r2_pboole X0 X1 X3)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 X0) \wedge \\ & \quad (v1_funct_1 X1) \wedge (v1_partfun1 X1 X0))) \Rightarrow (\forall X2. ((v1_relat_1 \\ & \quad X2) \wedge ((v4_relat_1 X2 X0) \wedge ((v1_funct_1 X2) \wedge (v1_partfun1 X2 X0)))) \Rightarrow \\ & ((r2_pboole X0 (k1_pzfmisc1 X0 X1) (k1_pzfmisc1 X0 X2)) \Rightarrow (r6_pboole \\ & \quad X0 X1 X2))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((v1_relat_1 X1) \wedge ((v4_relat_1 \\
& X1 X0) \wedge ((v1_funct_1 X1) \wedge (v1_partfun1 X1 X0)))) \wedge ((v1_relat_1 \\
& X2) \wedge ((v4_relat_1 X2 X0) \wedge ((v1_funct_1 X2) \wedge (v1_partfun1 X2 X0)))))) \Rightarrow \\
& ((v1_relat_1 (k2_pzfmisc1 X0 X1 X2)) \wedge ((v4_relat_1 (k2_pzfmisc1 \\
& X0 X1 X2) X0) \wedge ((v1_funct_1 (k2_pzfmisc1 X0 X1 X2)) \wedge (v1_partfun1 \\
& (k2_pzfmisc1 X0 X1 X2) X0))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 X0) \wedge (\\
& (v1_funct_1 X1) \wedge (v1_partfun1 X1 X0)))) \Rightarrow ((v1_relat_1 (k1_pzfmisc1 \\
& X0 X1)) \wedge ((v4_relat_1 (k1_pzfmisc1 X0 X1) X0) \wedge ((v1_funct_1 (k1_pzfmisc1 \\
& X0 X1)) \wedge (v1_partfun1 (k1_pzfmisc1 X0 X1) X0))))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 X0) \wedge (\\
& (v1_funct_1 X1) \wedge (v1_partfun1 X1 X0)))) \Rightarrow (\forall X2. ((v1_relat_1 \\
& X2) \wedge ((v4_relat_1 X2 X0) \wedge ((v1_funct_1 X2) \wedge (v1_partfun1 X2 X0)))) \Rightarrow \\
& (\forall X3. ((v1_relat_1 X3) \wedge ((v4_relat_1 X3 X0) \wedge ((v1_funct_1 \\
& X3) \wedge (v1_partfun1 X3 X0)))) \Rightarrow ((r2_pboole X0 (k2_pzfmisc1 X0 X1 X2) \\
& (k1_pzfmisc1 X0 X3)) \Rightarrow ((r6_pboole X0 X1 X3) \wedge (r6_pboole X0 X2 X3))))))
\end{aligned}$$