

t40_rfunct_2

(TMRMaeMV2NzCQxaPnu19rfcCykwwg2uCBi19)

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Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $v8_valued_0 : \iota \Rightarrow o$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_funct_1 : \iota \Rightarrow o$ be given. Let $k3_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5_valued_0 : \iota \Rightarrow o$ be given. Let $v6_valued_0 : \iota \Rightarrow o$ be given. Let $v7_valued_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. \forall X2. ((v1_funct_1 X2) \wedge (m1_subset_1 \\
 & \quad X2 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow (\forall X3. \\
 & ((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers \\
 & \quad k1_numbers)))) \Rightarrow (((v5_valued_0 (k2_partfun1 k1_numbers k1_numbers \\
 & \quad X2 X0)) \wedge (v5_valued_0 (k2_partfun1 k1_numbers k1_numbers X3 X1))) \Rightarrow \\
 & \quad (v5_valued_0 (k2_partfun1 k1_numbers k1_numbers (k3_valued_1 \\
 & \quad k1_numbers k1_numbers k1_numbers X2 X3) (k3_xboole_0 X0 X1)))) \wedge \\
 & \quad (((v6_valued_0 (k2_partfun1 k1_numbers k1_numbers X2 X0)) \wedge \\
 & \quad v6_valued_0 (k2_partfun1 k1_numbers k1_numbers X3 X1))) \Rightarrow (v6_valued_0 \\
 & \quad (k2_partfun1 k1_numbers k1_numbers (k3_valued_1 k1_numbers k1_numbers \\
 & \quad k1_numbers X2 X3) (k3_xboole_0 X0 X1)))) \wedge (((v7_valued_0 (k2_partfun1 \\
 & \quad k1_numbers k1_numbers X2 X0)) \wedge (v7_valued_0 (k2_partfun1 k1_numbers \\
 & \quad k1_numbers X3 X1))) \Rightarrow (v7_valued_0 (k2_partfun1 k1_numbers k1_numbers \\
 & \quad (k3_valued_1 k1_numbers k1_numbers k1_numbers X2 X3) (k3_xboole_0 \\
 & \quad X0 X1)))) \wedge (((v8_valued_0 (k2_partfun1 k1_numbers k1_numbers \\
 & \quad X2 X0)) \wedge (v8_valued_0 (k2_partfun1 k1_numbers k1_numbers X3 X1))) \Rightarrow \\
 & \quad (v8_valued_0 (k2_partfun1 k1_numbers k1_numbers (k3_valued_1 \\
 & \quad k1_numbers k1_numbers k1_numbers X2 X3) (k3_xboole_0 X0 X1))))))))) \\
 & \hspace{15em} (1)
 \end{aligned}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct_1 X2) \wedge \\
 & \quad (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \Rightarrow ((v1_funct_1 \\
 & \quad (k2_partfun1 X0 X1 X2 X3)) \wedge (m1_subset_1 (k2_partfun1 X0 X1 X2 X3) \\
 & \quad (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \\
 & \hspace{15em} (2)
 \end{aligned}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers))) \Rightarrow (((v1_funct_1 X0) \wedge (v3_funct_1 X0)) \Rightarrow ((v1_funct_1 X0) \wedge ((v7_valued_0 X0) \wedge (v8_valued_0 X0)))) \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow (\forall X3. \\ & ((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow (((v8_valued_0 (k2_partfun1 k1_numbers k1_numbers X2 X0)) \wedge (v3_funct_1 (k2_partfun1 k1_numbers k1_numbers X3 X1))) \Rightarrow \\ & (v8_valued_0 (k2_partfun1 k1_numbers k1_numbers (k3_valued_1 k1_numbers k1_numbers k1_numbers X2 X3) (k3_xboole_0 X0 X1)))))) \end{aligned}$$