

t5_mesfunc3 (TMWeEP-
awsv7bjvSN9G1TERSdw7sg7Tqq2Wb)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_prob_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_prob_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_prob_2 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m2_finseq_1 X1 X0) \Rightarrow ((v1_prob_2 X1) \Leftrightarrow (\forall X2. \\ (v7_ordinal1 X2) \Rightarrow (\forall X3. (v7_ordinal1 X3) \Rightarrow (((X2 \in k4_finseq_1 \\ X1) \wedge (X3 \in k4_finseq_1 X1)) \Rightarrow ((X2 = X3) \vee (r1_xboole_0 (k1_funct_1 \\ X1 X2) (k1_funct_1 X1 X3)))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. k3_xboole_0 X0 k1_xboole_0 = k1_xboole_0 \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k3_xboole_0 (k3_xboole_0 X0 \\ X1) X2 = k3_xboole_0 X0 (k3_xboole_0 X1 X2) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (r1_xboole_0 X0 X1) \Leftrightarrow (k3_xboole_0 X0 X1 = \\ k1_xboole_0) \quad (4)$$

Assume the following.

$$k1_xboole_0 = the (\lambda X0 : \iota. v1_xboole_0 X0) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. k3_xboole_0 X0 X1 = k3_xboole_0 X1 X0 \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.\forall X2.((\neg v1_xboole_0 \\ & X2) \wedge ((v1_prob_1 X2 X0) \wedge (v4_prob_1 X2 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k1_zfmisc_1 X0)))))) \Rightarrow (\forall X3.((v1_prob_2 X3) \wedge (m2_finseq_1 \\ & X3 X2)) \Rightarrow (\forall X4.(m2_finseq_1 X4 X2) \Rightarrow (((k4_finseq_1 X4 = k4_finseq_1 \\ & X3) \wedge (\forall X5.(v7_ordinal1 X5) \Rightarrow ((X5 \in k4_finseq_1 X4) \Rightarrow (k1_funct_1 \\ & X4 X5 = k3_xboole_0 X1 (k1_funct_1 X3 X5)))))) \Rightarrow ((v1_prob_2 X4) \wedge (\\ & m2_finseq_1 X4 X2)))))) \end{aligned}$$