

t13_prob_2 (TMMxrdWQdokzDBuRMThve- bxjszA8a3UHTeg)

October 27, 2020

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 $m1_prob_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_prob_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_prob_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge \\ & ((v1_prob_1 X1 X0) \wedge ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 X0)))))) \Rightarrow (\forall X2.(m1_prob_1 X2 X0 X1) \Rightarrow (\forall X3. \\ & (m1_prob_1 X3 X0 X1) \Rightarrow (\forall X4.(m2_prob_1 X4 X0 X1) \Rightarrow ((r1_tarski \\ & X2 X3) \Rightarrow (r1_xxreal_0 (k1_seq_1 X4 X2) (k1_seq_1 X4 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.r1_tarski (k3_xboole_0 X0 X1) X0 \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 X1) \wedge ((v1_prob_1 X1 X0) \wedge \\ & ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\ & X0)))))) \Rightarrow (\forall X2.(m1_prob_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1_xboole_0 \\ & X1) \wedge ((v1_prob_1 X1 X0) \wedge ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 X0)))))) \wedge ((m1_subset_1 X2 X1) \wedge (m1_subset_1 X3 X1))) \Rightarrow \\ & (k5_prob_1 X0 X1 X2 X3 = k3_xboole_0 X2 X3) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1_xboole_0 \\ & X1) \wedge ((v1_prob_1 X1 X0) \wedge ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 X0)))))) \wedge ((m1_subset_1 X2 X1) \wedge (m1_subset_1 X3 X1))) \Rightarrow \\ & (m1_prob_1 (k5_prob_1 X0 X1 X2 X3) X0 X1) \end{aligned} \quad (5)$$

Assume the following.

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

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge \\ & ((v1_prob_1 X1 X0) \wedge ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 X0)))))) \Rightarrow (\forall X2.(m1_prob_1 X2 X0 X1) \Rightarrow (\forall X3. \\ & (m1_prob_1 X3 X0 X1) \Rightarrow (\forall X4.(m2_prob_1 X4 X0 X1) \Rightarrow ((r1_xxreal_0 \\ & (k1_seq_1 X4 (k5_prob_1 X0 X1 X2 X3)) (k1_seq_1 X4 X3)) \wedge (r1_xxreal_0 \\ & (k1_seq_1 X4 (k5_prob_1 X0 X1 X2 X3)) (k1_seq_1 X4 X2)))))) \end{aligned}$$