

t18_prob_2

(TMPX3ivhpemMsSAkXTq2eedthPwSkKiwSpQ)

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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 $m1_prob_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $np_1 : \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_prob_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_prob_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k9_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge \\ & ((v1_prob_1 X1 X0) \wedge ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 X0)))))) \Rightarrow (\forall X2.(m1_prob_1 X2 X0 X1) \Rightarrow (\forall X3. \\ & (m2_prob_1 X3 X0 X1) \Rightarrow (k1_seq_1 X3 (k7_prob_1 X0 X1 (k4_prob_1 X0 \\ & X1) X2) = k9_real_1 np_1 (k1_seq_1 X3 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X1) \wedge ((v1_prob_1 X1 X0) \wedge \\ & ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\ & X0)))))) \Rightarrow (m1_prob_1 X0 X0 X1) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge \\ & ((v1_prob_1 X1 X0) \wedge ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 X0)))))) \Rightarrow (\forall X2.(m1_prob_1 X2 X0 X1) \Rightarrow (\forall X3. \\ & (m2_prob_1 X3 X0 X1) \Rightarrow ((\neg(\neg r1_xxreal_0 np_1 (k1_seq_1 X3 X2))) \wedge \\ & (r1_xxreal_0 (k1_seq_1 X3 (k7_prob_1 X0 X1 (k4_prob_1 X0 X1) X2)) \\ & k6_numbers) \wedge (\neg(\neg r1_xxreal_0 (k1_seq_1 X3 (k7_prob_1 X0 X1 (k4_prob_1 \\ & X0 X1) X2)) k6_numbers) \wedge (r1_xxreal_0 np_1 (k1_seq_1 X3 X2)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge \\ & ((v1_prob_1 X1 X0) \wedge ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 X0)))))) \Rightarrow (\forall X2.(m1_prob_1 X2 X0 X1) \Rightarrow (\forall X3. \\ & (m2_prob_1 X3 X0 X1) \Rightarrow (k1_seq_1 X3 X2 = k9_real_1 np_1 (k1_seq_1 \\ & X3 (k7_prob_1 X0 X1 (k4_prob_1 X0 X1) X2)))))) \end{aligned} \quad (4)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1_xboole_0 \\ & X1) \wedge ((v1_prob_1 X1 X0) \wedge ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 X0)))))) \wedge ((m1_subset_1 X2 X1) \wedge (m1_subset_1 X3 X1))) \Rightarrow \\ & (m1_prob_1 (k7_prob_1 X0 X1 X2 X3) X0 X1) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 X1) \wedge ((v1_prob_1 X1 X0) \wedge \\ & ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\ & X0)))))) \Rightarrow (k4_prob_1 X0 X1 = X0) \end{aligned} \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge \\ & ((v1_prob_1 X1 X0) \wedge ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 X0)))))) \Rightarrow (\forall X2.(m1_prob_1 X2 X0 X1) \Rightarrow (\forall X3. \\ & (m2_prob_1 X3 X0 X1) \Rightarrow ((\neg(\neg r1_xxreal_0 np_1 (k1_seq_1 X3 (k7_prob_1 \\ & X0 X1 (k4_prob_1 X0 X1) X2))) \wedge (r1_xxreal_0 (k1_seq_1 X3 X2) k6_numbers)) \wedge \\ & (\neg(\neg r1_xxreal_0 (k1_seq_1 X3 X2) k6_numbers) \wedge (r1_xxreal_0 np_1 \\ & (k1_seq_1 X3 (k7_prob_1 X0 X1 (k4_prob_1 X0 X1) X2))))))))) \end{aligned}$$