

t18_prob_3

(TMYtz2LTkypjqGPsboo2ThaDdJRnPdXYrqN)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ 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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_prob_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_prob_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.\forall X2.\forall X3. \\ & ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 k5_numbers (k9_setfam_1 X1)) \wedge \\ & (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k9_setfam_1 \\ & X1)))))) \Rightarrow ((X2 \in k1_funct_1 (k3_prob_3 X1 X3) X0) \Leftrightarrow ((X2 \in k1_funct_1 \\ & X3 X0) \wedge (\forall X4.(v7_ordinal1 X4) \Rightarrow (\neg(\neg r1_xreal_0 X0 X4) \wedge \\ & X2 \in k1_funct_1 X3 X4)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.\forall X2.\forall X3. \\ & ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 k5_numbers (k9_setfam_1 X1)) \wedge \\ & (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k9_setfam_1 \\ & X1)))))) \Rightarrow ((X2 \in k1_funct_1 (k2_prob_3 X1 X3) X0) \Leftrightarrow (\exists X4.(\\ & v7_ordinal1 X4) \wedge ((r1_xreal_0 X4 X0) \wedge (X2 \in k1_funct_1 X3 X4)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.\forall X2.((v1_funct_1 \\ & X2) \wedge ((v1_funct_2 X2 k5_numbers (k9_setfam_1 X1)) \wedge (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k9_setfam_1 X1)))))) \Rightarrow \\ & (r1_tarski (k1_funct_1 (k3_prob_3 X1 X2) X0) (k1_funct_1 (k2_prob_3 \\ & X1 X2) X0))) \end{aligned}$$