t19_prob_1 (TMNSGY81ShudTBbxBGpA21js6FqJx5EhCRH)

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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 $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_finsub\_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X2) \wedge ((v1\_prob\_1\ X2\ X0) \wedge ((v4\_prob\_1\ X2\ X0) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))))) \Rightarrow ((X1 \in X2) \Rightarrow (m1\_prob\_1\ X1\ X0\ X2)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X1) \wedge ((v1\_prob\_1\ X1\ X0) \wedge ((v4\_prob\_1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))))) \Rightarrow (\forall X2.(m1\_prob\_1\ X2\ X0\ X1) \Leftrightarrow (m1\_subset\_1\ X2\ X1)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0)) \Rightarrow (k9\_subset\_1\ X0\ X1\ X2 = k3\_xboole\_0\ X1\ X2) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X1) \wedge ((v1\_prob\_1\ X1\ X0) \wedge ((v4\_prob\_1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))))) \Rightarrow (\forall X2.(m1\_prob\_1\ X2\ X0\ X1) \Rightarrow (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0))) \tag{4}$$

Assume the following.

$$\forall X0.(v2\_finsub\_1\ X0) \Leftrightarrow (\forall X1.\forall X2.((X1 \in X0) \wedge (X2 \in X0)) \Rightarrow (k3\_xboole\_0\ X1\ X2 \in X0)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\Rightarrow((m1\_subset\_1\ X1\ X0)\Leftrightarrow (X1 \in X0)))\wedge((v1\_xboole\_0\ X0)\Rightarrow((m1\_subset\_1\ X1\ X0)\Leftrightarrow(v1\_xboole\_0\ X1))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))\Rightarrow(((\neg v1\_xboole\_0\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge(v4\_prob\_1\ X1\ X0)))\Rightarrow((\neg v1\_xboole\_0\ X1)\wedge((v2\_finsub\_1\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge(v4\_prob\_1\ X1\ X0))))) \tag{7}$$

Theorem 1

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge((v4\_prob\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))\Rightarrow(\forall X2.(m1\_prob\_1\ X2\ X0\ X1)\Rightarrow(\forall X3.(m1\_prob\_1\ X3\ X0\ X1)\Rightarrow(m1\_prob\_1\ (k9\_subset\_1\ X0\ X2\ X3)\ X0\ X1)))$$