# t6_random_1 (TMYNMKuGtd-sNQUV3ZYMizVSLR7tarsD9sXx)

October 27, 2020

Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_numbers : \iota$ be given. Let $r2\_mesfunc6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_random\_1 : \iota \Rightarrow \iota$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1\_prob\_2 : \iota \Rightarrow o$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_tarski : \iota \Rightarrow \iota$ be given. Let $k2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $v2\_funct\_1 : \iota \Rightarrow o$ be given. Let $k3\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k5\_card\_1 : \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0\ X1) \wedge ((v1\_prob\_1\ X1\ X0) \wedge ((v4\_prob\_1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))))) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k1\_numbers)))) \Rightarrow ((r2\_mesfunc6\ X0\ X1\ X2) \Rightarrow (m2\_subset\_1\ (k1\_relset\_1\ X0\ X2)\ (k1\_zfmisc\_1\ X0)\ X1)))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge(v1\_finset\_1\ X0))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k1\_numbers))))\Rightarrow(\exists X2.((v1\_prob\_2\ X2)\wedge(m2\_finseq\_1\ X2\ (k1\_random\_1\ X0)))\wedge(\exists X3.(m2\_finseq\_1\ X3\ (k1\_relset\_1\ X0\ X1))\wedge((k1\_relset\_1\ X0\ X1 = k3\_tarski\ (k2\_relset\_1\ (k1\_random\_1\ X0)\ X2))\wedge((k4\_finseq\_1\ X2 = k4\_finseq\_1\ X3)\wedge((v2\_funct\_1\ X3)\wedge((k2\_relset\_1\ (k1\_relset\_1\ X0\ X1)\ X3 = k1\_relset\_1\ X0\ X1)\wedge((k3\_finseq\_1\ X3 = k5\_card\_1\ (k1\_relset\_1\ X0\ X1))\wedge((\forall X4.(v7\_ordinal1\ X4)\Rightarrow((X4 \in k4\_finseq\_1\ X2)\Rightarrow(k1\_funct\_1\ X2\ X4 = k1\_tarski\ (k1\_funct\_1\ X3\ X4))))\wedge(\forall X4.(v7\_ordinal1\ X4)\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ X0)\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ X0)\Rightarrow(((X4 \in k4\_finseq\_1\ X2)\wedge((X5 \in k1\_funct\_1\ X2\ X4)\wedge(X6 \in k1\_funct\_1\ X2\ X4)))\Rightarrow(k1\_seq\_1\ X1\ X5 = k1\_seq\_1\ X1\ X6)))))))))))))) \tag{2}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow((\neg v1\_xboole\_0\ (k1\_random\_1\ X0))\wedge((v1\_prob\_1\ (k1\_random\_1\ X0)\ X0)\wedge((v4\_prob\_1\ (k1\_random\_1\ X0)\ X0)\wedge(m1\_subset\_1\ (k1\_random\_1\ X0)\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))) \tag{3}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge((v4\_prob\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k1\_numbers))))\Rightarrow((r2\_mesfunc6\ X0\ X1\ X2)\Leftrightarrow(\exists X3.((v1\_prob\_2\ X3)\wedge(m2\_finseq\_1\ X3\ X1))\wedge((k1\_relset\_1\ X0\ X2 = k3\_tarski\ (k2\_relset\_1\ X1\ X3))\wedge(\forall X4.(v7\_ordinal1\ X4)\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ X0)\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ X0)\Rightarrow(((X4 \in k4\_finseq\_1\ X3)\wedge((X5 \in k1\_funct\_1\ X3\ X4)\wedge(X6 \in k1\_funct\_1\ X3\ X4)))\Rightarrow(k1\_seq\_1\ X2\ X5 = k1\_seq\_1\ X2\ X6)))))))))) \tag{4}$$

**Theorem 1**

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge(v1\_finset\_1\ X0))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k1\_numbers))))\Rightarrow((r2\_mesfunc6\ X0\ (k1\_random\_1\ X0)\ X1)\wedge(m2\_subset\_1\ (k1\_relset\_1\ X0\ X1)\ (k1\_zfmisc\_1\ X0)\ (k1\_random\_1\ X0))))$$