t3_finance1 (TMUtbCnbvkQU2i288tXa8qr1xXSnyUbQCG8)

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Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xxreal\_0 : \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_numbers : \iota$ be given. Let $k12\_prob\_1 : \iota$ be given. Let $k2\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xxreal\_0 : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $k4\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_prob\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k11\_prob\_1 : \iota$ be given. Let $k3\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_prob\_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X2))) \Rightarrow (m1\_subset\_1\ X0\ X2) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ X1)) \Leftrightarrow (r1\_tarski\ X0\ X1) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1) \Rightarrow ((v1\_xboole\_0\ X1) \vee (X0 \in X1)) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (k6\_subset\_1\ k1\_numbers\ (k2\_rcomp\_1\ k2\_xxreal\_0\ X0) = k3\_rcomp\_1\ X0\ k1\_xxreal\_0) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)))) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ X0\ X1) \Leftrightarrow (m1\_subset\_1\ X2\ X1)) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.k6\_subset\_1\ X0\ X1 = k4\_xboole\_0\ X0\ X1 \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0\ X0)\wedge(v1\_xxreal\_0\ X1))\Rightarrow(k2\_rcomp\_1\ X0\ X1 = k4\_xxreal\_1\ X0\ X1) \tag{8}$$

Assume the following.

$$v1\_xxreal\_0\ k2\_xxreal\_0 \tag{9}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))\Rightarrow((\neg v1\_xboole\_0\ (k9\_prob\_1\ X0\ X1))\wedge((v1\_prob\_1\ (k9\_prob\_1\ X0\ X1)\ X0)\wedge((v4\_prob\_1\ (k9\_prob\_1\ X0\ X1)\ X0)\wedge(m1\_subset\_1\ (k9\_prob\_1\ X0\ X1)\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))) \tag{11}$$

Assume the following.

$$(\neg v1\_xboole\_0\ k12\_prob\_1)\wedge((v1\_prob\_1\ k12\_prob\_1\ k1\_numbers)\wedge((v4\_prob\_1\ k12\_prob\_1\ k1\_numbers)\wedge(m1\_subset\_1\ k12\_prob\_1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ k1\_numbers))))) \tag{12}$$

Assume the following.

$$m1\_subset\_1\ k11\_prob\_1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ k1\_numbers)) \tag{13}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))\Rightarrow(\forall X2.((\neg v1\_xboole\_0\ X2)\wedge((v1\_prob\_1\ X2\ X0)\wedge((v4\_prob\_1\ X2\ X0)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))\Rightarrow((X2 = k9\_prob\_1\ X0\ X1)\Leftrightarrow((r1\_tarski\ X1\ X2)\wedge(\forall X3.((r1\_tarski\ X1\ X3)\wedge((\neg v1\_xboole\_0\ X3)\wedge((v1\_prob\_1\ X3\ X0)\wedge((v4\_prob\_1\ X3\ X0)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))))))\Rightarrow(r1\_tarski\ X2\ X3)))))) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(k3\_subset\_1\ X0\ X1 = k4\_xboole\_0\ X0\ X1) \tag{15}$$

Assume the following.

$$k1\_xxreal\_0 = k1\_numbers \tag{16}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Leftrightarrow (X0 \in k1\_numbers) \tag{17}$$

Assume the following.

$$\begin{gathered}\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\\ X0))) \Rightarrow ((v1\_prob\_1\ X1\ X0) \Leftrightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\\ X0)) \Rightarrow ((X2 \in X1) \Rightarrow (k3\_subset\_1\ X0\ X2 \in X1))))\end{gathered} \tag{18}$$

Assume the following.

$$k12\_prob\_1 = k9\_prob\_1\ k1\_numbers\ k11\_prob\_1 \tag{19}$$

Assume the following.

$$\begin{gathered}k11\_prob\_1 = ReplSep\ (toset\ (\lambda X0 : \iota.m1\_subset\_1\ X0\ k1\_numbers))\\ (\lambda X0 : \iota.True)\ (\lambda X0 : \iota.k10\_prob\_1\ X0)\end{gathered} \tag{20}$$

Assume the following.

$$\begin{gathered}\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (k10\_prob\_1\ X0 = k4\_xxreal\_1\ k2\_xxreal\_0\\ X0)\end{gathered} \tag{21}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (v1\_xxreal\_0\ X0) \tag{22}$$

Assume the following.

$$\begin{gathered}\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\\ X0)) \Rightarrow (v1\_xboole\_0\ X1))\end{gathered} \tag{23}$$

Theorem 1

$$\begin{gathered}\forall X0.(v1\_xreal\_0\ X0) \Rightarrow ((m2\_subset\_1\ (k3\_rcomp\_1\ X0\ k1\_xxreal\_0)\\ (k1\_zfmisc\_1\ k1\_numbers)\ k12\_prob\_1) \wedge (m2\_subset\_1\ (k2\_rcomp\_1\\ k2\_xxreal\_0\ X0)\ (k1\_zfmisc\_1\ k1\_numbers)\ k12\_prob\_1))\end{gathered}$$