t43_hfdiff_1 (TMKzEzA-BeTxNiVu8476xQ2KTBQQZ57CWQTz)

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Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $v3\_rcomp\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $r2\_fdiff\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_rfunct\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_taylor\_1 : \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $v1\_int\_1 : \iota \Rightarrow o$ be given. Let $k4\_prepower : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_fdiff\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_rfunct\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k20\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $v6\_membered : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5\_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers) \Rightarrow (r2\_fdiff\_1\ (k1\_taylor\_1\ X0)\ k1\_numbers) \tag{1}$$

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.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_int\_1\ X1) \Rightarrow (\neg(X0 \neq k6\_numbers) \wedge (k4\_prepower\ X0\ X1 = k6\_numbers))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_rcomp\_1\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ k1\_numbers))) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)))) \Rightarrow (((r2\_fdiff\_1\ X2\ X0) \wedge (r1\_tarski\ X1\ X0)) \Rightarrow (r2\_fdiff\_1\ X2\ X1))) \tag{4}$$

Assume the following.

$$\forall X0.((v3\_rcomp\_1\ X0)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k1\_numbers)))\Rightarrow (\forall X1.((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers))))\Rightarrow(((r2\_fdiff\_1\ X1\ X0)\wedge(\forall X2.\ (m1\_subset\_1\ X2\ k1\_numbers)\Rightarrow(\neg(X2\in X0)\wedge(k1\_seq\_1\ X1\ X2 = k6\_numbers))))\Rightarrow ((r2\_fdiff\_1\ (k6\_rfunct\_1\ k1\_numbers\ k1\_numbers\ X1)\ X0)\wedge(r2\_relset\_1\ k1\_numbers\ k1\_numbers\ (k2\_fdiff\_1\ (k6\_rfunct\_1\ k1\_numbers\ k1\_numbers\ X1)\ X0)\ (k32\_valued\_1\ k1\_numbers\ k1\_numbers\ (k3\_rfunct\_1\ k1\_numbers\ k1\_numbers\ (k2\_fdiff\_1\ X1\ X0)\ (k20\_valued\_1\ k1\_numbers\ k1\_numbers\ k1\_numbers\ X1\ X1)))))))) \tag{5}$$

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.

$$k5\_numbers = k4\_ordinal1 \tag{7}$$

Assume the following.

$$(\neg v1\_xboole\_0\ k4\_ordinal1)\wedge(v3\_ordinal1\ k4\_ordinal1) \tag{8}$$

Assume the following.

$$v6\_membered\ k4\_ordinal1 \tag{9}$$

Assume the following.

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

Assume the following.

$$m1\_subset\_1\ k5\_numbers\ (k1\_zfmisc\_1\ k1\_numbers) \tag{11}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0)\Rightarrow((v1\_funct\_1\ (k1\_taylor\_1\ X0))\wedge((v1\_funct\_2\ (k1\_taylor\_1\ X0)\ k1\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ (k1\_taylor\_1\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers))))) \tag{12}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0)\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ k1\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)))))\Rightarrow((X1 = k1\_taylor\_1\ X0)\Leftrightarrow(\forall X2.\ (v1\_xreal\_0\ X2)\Rightarrow(k1\_seq\_1\ X1\ X2 = k4\_prepower\ X2\ X0)))) \tag{13}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (v1\_xreal\_0\ X0) \tag{14}$$

Assume the following.

$$\forall X0.(v6\_membered\ X0) \Rightarrow (v5\_membered\ X0) \tag{15}$$

Assume the following.

$$\forall X0.(v5\_membered\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (v1\_int\_1\ X1)) \tag{16}$$

Theorem 1

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers) \Rightarrow (\forall X1.\ ((v3\_rcomp\_1\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ k1\_numbers))) \Rightarrow ((\neg k6\_numbers \in X1) \Rightarrow (r2\_fdiff\_1\ (k6\_rfunct\_1\ k1\_numbers\ k1\_numbers\ (k1\_taylor\_1\ X0))\ X1)))$$