t57_integra8 (TMW8javYttVZsBuXiRtF4N9Vhe44ZyvWhML)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v2\_measure5 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_numbers : \iota$ be given. Let $k2\_integra5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_sin\_cos2 : \iota$ be given. Let $k9\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_sin\_cos2 : \iota$ be given. Let $k4\_seq\_4 : \iota \Rightarrow \iota$ be given. Let $k5\_seq\_4 : \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $r2\_fdiff\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_fdiff\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_fdiff\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_integra5 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_comseq\_2 : \iota \Rightarrow o$ be given. Let $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v3\_valued\_0 : \iota \Rightarrow o$ be given. Let $v3\_membered : \iota \Rightarrow o$ be given. Let $k3\_seq\_4 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ X1)) \Leftrightarrow (r1\_tarski\ X0\ X1) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow ((r2\_fdiff\_1\ k1\_sin\_cos2\ k1\_numbers) \wedge (k1\_fdiff\_1\ k1\_sin\_cos2\ X0 = k1\_seq\_1\ k4\_sin\_cos2\ X0)) \tag{2}$$

Assume the following.

$$k2\_fdiff\_1\ k1\_sin\_cos2\ k1\_numbers = k4\_sin\_cos2 \tag{3}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge ((v2\_measure5\ X0) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k1\_numbers)))) \Rightarrow (\forall X1.\forall X2.((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)))) \Rightarrow (((r1\_tarski\ X0\ X1) \wedge ((r2\_fdiff\_1\ X2\ X1) \wedge ((r1\_integra5\ X0\ (k2\_fdiff\_1\ X2\ X1)) \wedge (v1\_comseq\_2\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ (k2\_fdiff\_1\ X2\ X1)\ X0))))) \Rightarrow (k2\_integra5\ X0\ (k2\_fdiff\_1\ X2\ X1) = k9\_real\_1\ (k1\_seq\_1\ X2\ (k4\_seq\_4\ X0))\ (k1\_seq\_1\ X2\ (k5\_seq\_4\ X0)))))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0\ X0)\wedge (((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\wedge(m1\_subset\_1\ X3\ X0)))\Rightarrow(k3\_funct\_2\ X0\ X1\ X2\ X3 = k1\_funct\_1\ X2\ X3) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v3\_valued\_0\ X0)))\Rightarrow(k1\_seq\_1\ X0\ X1 = k1\_funct\_1\ X0\ X1) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v2\_measure5\ X0)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k1\_numbers))))\Rightarrow((r1\_integra5\ X0\ k4\_sin\_cos2)\wedge(v1\_comseq\_2\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ k4\_sin\_cos2\ X0))) \tag{7}$$

Assume the following.

$$v3\_membered\ k1\_numbers \tag{8}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \tag{9}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k1\_numbers))\Rightarrow(m1\_subset\_1\ (k5\_seq\_4\ X0)\ k1\_numbers) \tag{10}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k1\_numbers))\Rightarrow(m1\_subset\_1\ (k4\_seq\_4\ X0)\ k1\_numbers) \tag{11}$$

Assume the following.

$$\forall X0.(v3\_membered\ X0)\Rightarrow(v1\_xreal\_0\ (k3\_seq\_4\ X0)) \tag{12}$$

Assume the following.

$$(v1\_funct\_1\ k1\_sin\_cos2)\wedge((v1\_funct\_2\ k1\_sin\_cos2\ k1\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ k1\_sin\_cos2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)))) \tag{13}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k1\_numbers))\Rightarrow(v3\_membered\ X0) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_relat\_1\ X2) \tag{15}$$

Assume the following.

$$\forall X0.\forall X1.(v3\_membered\ X1)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v3\_valued\_0\ X2)) \tag{16}$$

Theorem 1

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v2\_measure5\ X0)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k1\_numbers))))\Rightarrow(k2\_integra5\ X0\ k4\_sin\_cos2 = k9\_real\_1\ (k3\_funct\_2\ k1\_numbers\ k1\_numbers\ k1\_sin\_cos2\ (k4\_seq\_4\ X0))\ (k3\_funct\_2\ k1\_numbers\ k1\_numbers\ k1\_sin\_cos2\ (k5\_seq\_4\ X0)))$$