t47_integra8 (TMd6u8YURLRrpu12T5nAA4MKYYxrFb8wzd8)

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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 $k1\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k10\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32\_sin\_cos : \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $k2\_integra5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16\_sin\_cos : \iota$ be given. Let $k1\_real\_1 : \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k19\_sin\_cos : \iota$ be given. Let $k9\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_seq\_4 : \iota \Rightarrow \iota$ be given. Let $k5\_seq\_4 : \iota \Rightarrow \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $np\_\_0 : \iota$ be given. Let $k4\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $v3\_membered : \iota \Rightarrow o$ be given. Let $v1\_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow ((k1\_seq\_1\ k16\_sin\_cos\ (k3\_real\_1\ X0\ (k8\_real\_1\ np\_\_2\ k32\_sin\_cos)) = k1\_seq\_1\ k16\_sin\_cos\ X0) \wedge ((k1\_seq\_1\ k19\_sin\_cos\ (k3\_real\_1\ X0\ (k8\_real\_1\ np\_\_2\ k32\_sin\_cos)) = k1\_seq\_1\ k19\_sin\_cos\ X0) \wedge ((k1\_seq\_1\ k16\_sin\_cos\ (k9\_real\_1\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2)\ X0) = k1\_seq\_1\ k19\_sin\_cos\ X0) \wedge ((k1\_seq\_1\ k19\_sin\_cos\ (k9\_real\_1\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2)\ X0) = k1\_seq\_1\ k16\_sin\_cos\ X0) \wedge ((k1\_seq\_1\ k16\_sin\_cos\ (k7\_real\_1\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2)\ X0) = k1\_seq\_1\ k19\_sin\_cos\ X0) \wedge ((k1\_seq\_1\ k19\_sin\_cos\ (k7\_real\_1\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2)\ X0) = k1\_real\_1\ (k1\_seq\_1\ k16\_sin\_cos\ X0)) \wedge ((k1\_seq\_1\ k16\_sin\_cos\ (k7\_real\_1\ k32\_sin\_cos\ X0) = k1\_real\_1\ (k1\_seq\_1\ k16\_sin\_cos\ X0)) \wedge (k1\_seq\_1\ k19\_sin\_cos\ (k7\_real\_1\ k32\_sin\_cos\ X0) = k1\_real\_1\ (k1\_seq\_1\ k19\_sin\_cos\ X0)))))))))) \quad (1)$$

Assume the following.

$$(k1\_seq\_1\ k19\_sin\_cos\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2) = k6\_numbers) \wedge ((k1\_seq\_1\ k16\_sin\_cos\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2) = np\_\_1) \wedge ((k1\_seq\_1\ k19\_sin\_cos\ k32\_sin\_cos = k1\_real\_1\ np\_\_1) \wedge ((k1\_seq\_1\ k16\_sin\_cos\ k32\_sin\_cos = k6\_numbers) \wedge ((k1\_seq\_1\ k19\_sin\_cos\ (k7\_real\_1\ k32\_sin\_cos\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2)) = k6\_numbers) \wedge ((k1\_seq\_1\ k16\_sin\_cos\ (k7\_real\_1\ k32\_sin\_cos\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2)) = k1\_real\_1\ np\_\_1) \wedge ((k1\_seq\_1\ k19\_sin\_cos\ (k8\_real\_1\ np\_\_2\ k32\_sin\_cos) = np\_\_1) \wedge (k1\_seq\_1\ k16\_sin\_cos\ (k8\_real\_1\ np\_\_2\ k32\_sin\_cos) = k6\_numbers)))))))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (X0 = k1\_xboole\_0) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k6\_xcmplx\_0\ X0\ k6\_numbers = X0) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge ((v2\_measure5\ X0) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k1\_numbers)))) \Rightarrow (k2\_integra5\ X0\ (k32\_valued\_1\ k1\_numbers\ k1\_numbers\ k16\_sin\_cos) = k9\_real\_1\ (k3\_funct\_2\ k1\_numbers\ k1\_numbers\ k19\_sin\_cos\ (k4\_seq\_4\ X0))\ (k3\_funct\_2\ k1\_numbers\ k1\_numbers\ k19\_sin\_cos\ (k5\_seq\_4\ X0))) \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k1\_numbers) \Rightarrow (\forall X2.((\neg v1\_xboole\_0\ X2) \wedge ((v2\_measure5\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ k1\_numbers)))) \Rightarrow ((X2 = k1\_rcomp\_1\ X0\ X1) \Rightarrow ((k4\_seq\_4\ X2 = X1) \wedge (k5\_seq\_4\ X2 = X0))))) \tag{6}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_2) \wedge (m2\_subset\_1\ np\_\_2\ k1\_numbers\ k5\_numbers)) \wedge ((m1\_subset\_1\ np\_\_2\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_2\ k1\_numbers)) \tag{7}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_1) \wedge (m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers)) \wedge ((m1\_subset\_1\ np\_\_1\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_1\ k1\_numbers)) \tag{8}$$

Assume the following.

$$(m2\_subset\_1\ np\_\_0\ k1\_numbers\ k5\_numbers) \wedge ((m1\_subset\_1\ np\_\_0\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_0\ k1\_numbers)) \tag{9}$$

Assume the following.

$$v1\_xboole\_0\ np\_\_0 \tag{10}$$

Assume the following.

$$k6\_xcmplx\_0\ np\_\_0\ np\_\_1 = k4\_xcmplx\_0\ np\_\_1 \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k1\_numbers)\wedge(v1\_xreal\_0\ X1))\Rightarrow(k9\_real\_1\ X0\ X1 = k6\_xcmplx\_0\ X0\ X1) \tag{12}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0\ X0)\wedge(((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\wedge(m1\_subset\_1\ X3\ X0)))\Rightarrow(k3\_funct\_2\ X0\ X1\ X2\ X3 = k1\_funct\_1\ X2\ X3) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v3\_valued\_0\ X0)))\Rightarrow(k1\_seq\_1\ X0\ X1 = k1\_funct\_1\ X0\ X1) \tag{15}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(k1\_real\_1\ X0 = k4\_xcmplx\_0\ X0) \tag{16}$$

Assume the following.

$$\exists X0.(v1\_xboole\_0\ X0)\wedge((v1\_xcmplx\_0\ X0)\wedge((v1\_xxreal\_0\ X0)\wedge(v1\_xreal\_0\ X0))) \tag{17}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(k1\_real\_1\ (k1\_real\_1\ X0) = X0) \tag{18}$$

Assume the following.

$$v3\_membered\ k1\_numbers \tag{19}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \tag{20}$$

Assume the following.

$$m1\_subset\_1\ k32\_sin\_cos\ k1\_numbers \tag{21}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(m1\_subset\_1\ (k1\_real\_1\ X0)\ k1\_numbers) \tag{22}$$

Assume the following.

$$(v1\_funct\_1\ k19\_sin\_cos)\wedge((v1\_funct\_2\ k19\_sin\_cos\ k1\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ k19\_sin\_cos\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)))) \tag{23}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k1\_numbers)\wedge(v1\_xreal\_0\ X1))\Rightarrow(m1\_subset\_1\ (k10\_real\_1\ X0\ X1)\ k1\_numbers) \tag{24}$$

Assume the following.

$$\forall X0.(v3\_membered\ X0)\Rightarrow(v1\_membered\ X0) \tag{25}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_relat\_1\ X2) \tag{26}$$

Assume the following.

$$\forall X0.\forall X1.(v3\_membered\ X1)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v3\_valued\_0\ X2)) \tag{27}$$

Assume the following.

$$\forall X0.(v3\_membered\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow(v1\_xreal\_0\ X1)) \tag{28}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow(v1\_xcmplx\_0\ X1)) \tag{29}$$

Theorem 1

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v2\_measure5\ X0)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k1\_numbers))))\Rightarrow((X0 = k1\_rcomp\_1\ k6\_numbers\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2))\Rightarrow(k2\_integra5\ X0\ (k32\_valued\_1\ k1\_numbers\ k1\_numbers\ k16\_sin\_cos) = k1\_real\_1\ np\_\_1))$$