l25_integra6 (TMPutAPiYnLuRgrPPaPeTfjwGa21fuoGjFh)

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Let $v1\_xreal\_0 : \iota \Rightarrow o$ 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 $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_integra5 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_integra5 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k56\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18\_complex1 : \iota \Rightarrow \iota$ be given. Let $k4\_integra5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v3\_valued\_0 : \iota \Rightarrow o$ be given. Let $k5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k54\_valued\_1 : \iota \Rightarrow \iota$ be given. Let $k30\_valued\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v2\_measure5 : \iota \Rightarrow o$ be given. Let $k2\_integra5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $k1\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_membered : \iota \Rightarrow o$ be given. Let $k1\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3\_membered : \iota \Rightarrow o$ be given. Let $v1\_valued\_0 : \iota \Rightarrow o$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17\_complex1 : \iota \Rightarrow \iota$ be given. Let $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)))) \Rightarrow (((r1\_xxreal\_0\ X0\ X1) \wedge ((r1\_tarski\ (k3\_integra5\ X0\ X1)\ (k9\_xtuple\_0\ X2)) \wedge ((r1\_integra5\ (k3\_integra5\ X0\ X1)\ X2) \wedge (v1\_comseq\_2\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X2\ (k3\_integra5\ X0\ X1)))))) \Rightarrow (r1\_xxreal\_0\ (k18\_complex1\ (k4\_integra5\ X0\ X1\ X2))\ (k4\_integra5\ X0\ X1\ (k56\_valued\_1\ k1\_numbers\ k1\_numbers\ X2))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v3\_valued\_0\ X1))) \Rightarrow ((v1\_comseq\_2\ (k5\_relat\_1\ X1\ X0)) \Rightarrow ((v1\_comseq\_2\ (k5\_relat\_1\ (k54\_valued\_1\ X1)\ X0)) \wedge (v1\_comseq\_2\ (k5\_relat\_1\ (k30\_valued\_1\ X1)\ X0)))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v2\_measure5\ X0)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k1\_numbers))))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers))))\Rightarrow(((r1\_tarski\ X0\ (k9\_xtuple\_0\ X1))\wedge((r1\_integra5\ X0\ X1)\wedge(v1\_comseq\_2\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X1\ X0))))\Rightarrow((r1\_integra5\ X0\ (k56\_valued\_1\ k1\_numbers\ k1\_numbers\ X1))\wedge(r1\_xxreal\_0\ (k18\_complex1\ (k2\_integra5\ X0\ X1))\ (k2\_integra5\ X0\ (k56\_valued\_1\ k1\_numbers\ k1\_numbers\ X1))))))) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xxreal\_0\ X1)\Rightarrow(\forall X2.(v1\_xxreal\_0\ X2)\Rightarrow((X0\in k1\_xxreal\_1\ X1\ X2)\Leftrightarrow((r1\_xxreal\_0\ X1\ X0)\wedge(r1\_xxreal\_0\ X0\ X2))))) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(\forall X2.(v1\_xreal\_0\ X2)\Rightarrow(\forall X3.(v1\_xreal\_0\ X3)\Rightarrow(\forall X4.((v1\_funct\_1\ X4)\wedge(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers))))\Rightarrow(((r1\_xxreal\_0\ X0\ X1)\wedge((r1\_xxreal\_0\ X1\ X2)\wedge((r1\_xxreal\_0\ X2\ X3)\wedge((r1\_integra5\ (k3\_integra5\ X0\ X3)\ X4)\wedge((v1\_comseq\_2\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X4\ (k3\_integra5\ X0\ X3)))\wedge(r1\_tarski\ (k3\_integra5\ X0\ X3)\ (k9\_xtuple\_0\ X4)))))))\Rightarrow((r1\_integra5\ (k3\_integra5\ X1\ X2)\ X4)\wedge((v1\_comseq\_2\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X4\ (k3\_integra5\ X1\ X2)))\wedge(r1\_tarski\ (k3\_integra5\ X1\ X2)\ (k9\_xtuple\_0\ X4)))))))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_membered\ X1)\wedge((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\Rightarrow(k56\_valued\_1\ X0\ X1\ X2 = k54\_valued\_1\ X2) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))\Rightarrow(k2\_partfun1\ X0\ X1\ X2\ X3 = k5\_relat\_1\ X2\ X3) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow(k1\_rcomp\_1\ X0\ X1 = k1\_xxreal\_1\ X0\ X1) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.v1\_relat\_1\ (k2\_zfmisc\_1\ X0\ X1) \tag{9}$$

Assume the following.

$$v3\_membered\ k1\_numbers \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_membered\ X1)\wedge((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\Rightarrow((v1\_funct\_1\ (k56\_valued\_1\ X0\ X1\ X2))\wedge(m1\_subset\_1\ (k56\_valued\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k1\_numbers)))) \tag{11}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_valued\_0\ X0)))\Rightarrow((v1\_relat\_1\ (k54\_valued\_1\ X0))\wedge((v1\_funct\_1\ (k54\_valued\_1\ X0))\wedge(v3\_valued\_0\ (k54\_valued\_1\ X0)))) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow((\neg\ v1\_xboole\_0\ (k3\_integra5\ X0\ X1))\wedge((v2\_measure5\ (k3\_integra5\ X0\ X1))\wedge(m1\_subset\_1\ (k3\_integra5\ X0\ X1)\ (k1\_zfmisc\_1\ k1\_numbers)))) \tag{13}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow((r1\_xxreal\_0\ X0\ X1)\Rightarrow(k3\_integra5\ X0\ X1 = k1\_rcomp\_1\ X0\ X1))) \tag{14}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_valued\_0\ X0)))\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v1\_funct\_1\ X1)\wedge(v3\_valued\_0\ X1)))\Rightarrow((X1 = k54\_valued\_1\ X0)\Leftrightarrow((k9\_xtuple\_0\ X1 = k9\_xtuple\_0\ X0)\wedge(\forall X2.(X2 \in k9\_xtuple\_0\ X1)\Rightarrow(k1\_funct\_1\ X1\ X2 = k17\_complex1\ (k1\_funct\_1\ X0\ X2)))))) \tag{15}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v3\_valued\_0\ X0))\Rightarrow((v1\_relat\_1\ X0)\wedge(v1\_valued\_0\ X0)) \tag{16}$$

Assume the following.

$$\forall X0.(v3\_membered\ X0)\Rightarrow(v1\_membered\ X0) \tag{17}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xxreal\_0\ X0) \tag{18}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v5\_relat\_1\ X0\ k1\_numbers))\Rightarrow((v1\_relat\_1\ X0)\wedge(v3\_valued\_0\ X0)) \tag{19}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow((v4\_relat\_1\ X2\ X0)\wedge(v5\_relat\_1\ X2\ X1)) \tag{20}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_relat\_1\ X1)) \tag{21}$$

Theorem 1

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(\forall X2.(v1\_xreal\_0\ X2)\Rightarrow(\forall X3.(v1\_xreal\_0\ X3)\Rightarrow(\forall X4.((v1\_funct\_1\ X4)\wedge(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers))))\Rightarrow(((r1\_xxreal\_0\ X0\ X1)\wedge((r1\_xxreal\_0\ X2\ X3)\wedge((r1\_integra5\ (k3\_integra5\ X0\ X1)\ X4)\wedge((v1\_comseq\_2\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X4\ (k3\_integra5\ X0\ X1)))\wedge((r1\_tarski\ (k3\_integra5\ X0\ X1)\ (k9\_xtuple\_0\ X4))\wedge((X2\in k3\_integra5\ X0\ X1)\wedge(X3\in k3\_integra5\ X0\ X1)))))))\Rightarrow((r1\_tarski\ (k3\_integra5\ X2\ X3)\ (k9\_xtuple\_0\ (k56\_valued\_1\ k1\_numbers\ k1\_numbers\ X4)))\wedge((r1\_integra5\ (k3\_integra5\ X2\ X3)\ (k56\_valued\_1\ k1\_numbers\ k1\_numbers\ X4))\wedge((v1\_comseq\_2\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ (k56\_valued\_1\ k1\_numbers\ k1\_numbers\ X4)\ (k3\_integra5\ X2\ X3)))\wedge(r1\_xxreal\_0\ (k18\_complex1\ (k4\_integra5\ X2\ X3\ X4))\ (k4\_integra5\ X2\ X3\ (k56\_valued\_1\ k1\_numbers\ k1\_numbers\ X4)))))))))))$$