t92_matrixr2 (TMNxBFUXB-vUc9Gx12EsW5qUK93DYczXoKxe)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $m1\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k12\_matrixr1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_1 : \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k23\_rvsum\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_matrix\_1 : \iota \Rightarrow o$ be given. Let $k3\_finseq\_2 : \iota \Rightarrow \iota$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k22\_rvsum\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k1\_matrix\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_matrix\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $k1\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v3\_valued\_0 : \iota \Rightarrow o$ be given. Let $v1\_finseq\_1 : \iota \Rightarrow o$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_matrix\_1\ X0) \wedge (m2\_finseq\_1\ X0\ (k3\_finseq\_2\ k1\_numbers))) \Rightarrow (\forall X1.(m2\_finseq\_1\ X1\ k1\_numbers) \Rightarrow ((k3\_finseq\_1\ X0 = k3\_finseq\_1\ X1) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ k1\_numbers\ k5\_numbers) \Rightarrow ((X2 \in k2\_finseq\_1\ (k3\_finseq\_1\ (k12\_matrixr1\ X0\ X1))) \Rightarrow (k1\_seq\_1\ (k12\_matrixr1\ X0\ X1)\ X2 = k22\_rvsum\_1\ X1\ (k9\_matrix\_1\ k1\_numbers\ X0\ X2))))))) \tag{1}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0\ X1) \Rightarrow (\forall X2.(m1\_matrix\_1\ X2\ X1\ X0\ X0) \Rightarrow ((k3\_finseq\_1\ X2 = X0) \wedge ((k1\_matrix\_1\ X2 = X0) \wedge (k2\_matrix\_1\ X2 = k2\_zfmisc\_1\ (k2\_finseq\_1\ X0)\ (k2\_finseq\_1\ X0)))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)))) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ X0\ X1) \Leftrightarrow (m1\_subset\_1\ X2\ X1)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0) \Leftrightarrow (m1\_finseq\_1\ X1\ X0) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X0) \wedge (((v1\_matrix\_1\ X1) \wedge (m1\_finseq\_1\ X1\ (k3\_finseq\_2\ X0))) \wedge (v7\_ordinal1\ X2))) \Rightarrow (k9\_matrix\_1\ X0\ X1\ X2 = k7\_matrix\_1\ X0\ X1\ X2) \tag{5}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{6}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (k2\_finseq\_1\ X0 = k1\_finseq\_1\ X0) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge ((v3\_valued\_0\ X0) \wedge (v1\_finseq\_1\ X0)))) \wedge ((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge ((v3\_valued\_0\ X1) \wedge (v1\_finseq\_1\ X1))))) \Rightarrow (k23\_rvsum\_1\ X0\ X1 = k22\_rvsum\_1\ X0\ X1) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v3\_valued\_0\ X0))) \Rightarrow (k1\_seq\_1\ X0\ X1 = k1\_funct\_1\ X0\ X1) \tag{9}$$

Assume the following.

$$\neg v1\_finset\_1\ k4\_ordinal1 \tag{10}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0) \Rightarrow ((v1\_funct\_1\ X1) \wedge ((v1\_finseq\_1\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ X0))))) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X0) \wedge ((v7\_ordinal1\ X1) \wedge (v7\_ordinal1\ X2))) \Rightarrow (\forall X3.(m1\_matrix\_1\ X3\ X0\ X1\ X2) \Rightarrow ((v1\_matrix\_1\ X3) \wedge (m2\_finseq\_1\ X3\ (k3\_finseq\_2\ X0)))) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1\ X1\ X0) \Rightarrow ((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_finseq\_1\ X1))) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X0)\wedge(((v1\_matrix\_1\ X1)\wedge(m1\_finseq\_1\ X1\ (k3\_finseq\_2\ X0)))\wedge(v7\_ordinal1\ X2)))\Rightarrow(m2\_finseq\_1\ (k7\_matrix\_1\ X0\ X1\ X2)\ X0) \tag{15}$$

Assume the following.

$$m1\_subset\_1\ k5\_numbers\ (k1\_zfmisc\_1\ k1\_numbers) \tag{16}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(k1\_finseq\_1\ X0 = ReplSep\ (toset\ (\lambda X1 : \iota.m2\_subset\_1\ X1\ k1\_numbers\ k5\_numbers))\ (\lambda X1 : \iota.(r1\_xxreal\_0\ np\_\_1\ X1)\wedge(r1\_xxreal\_0\ X1\ X0))\ (\lambda X1 : \iota.X1)) \tag{17}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{18}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1\ X1\ X0)\Rightarrow(v5\_relat\_1\ X1\ X0) \tag{19}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v5\_relat\_1\ X0\ k1\_numbers))\Rightarrow((v1\_relat\_1\ X0)\wedge(v3\_valued\_0\ X0)) \tag{20}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(v1\_finset\_1\ X0) \tag{21}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(\forall X1.(m1\_matrix\_1\ X1\ k1\_numbers\ X0\ X0)\Rightarrow(\forall X2.(m2\_finseq\_1\ X2\ k1\_numbers)\Rightarrow(\forall X3.(m2\_finseq\_1\ X3\ k1\_numbers)\Rightarrow(((k3\_finseq\_1\ X2 = X0)\wedge((k3\_finseq\_1\ X3 = X0)\wedge(k12\_matrixr1\ X1\ X2 = X3)))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ k5\_numbers)\Rightarrow(((r1\_xxreal\_0\ np\_\_1\ X4)\wedge(r1\_xxreal\_0\ X4\ X0))\Rightarrow(k1\_funct\_1\ X3\ X4 = k23\_rvsum\_1\ X2\ (k9\_matrix\_1\ k1\_numbers\ X1\ X4)))))))))$$