t42_matrtop1 (TMc3avAiPYBijGhAz21qGHUo5kZ3d1iMN7Q)

October 27, 2020

Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $m1\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_vectsp\_1 : \iota$ be given. Let $v2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_matrtop1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15\_euclid : \iota \Rightarrow \iota$ be given. Let $k12\_matrix\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k8\_matrix13 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_funct\_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(v7\_ordinal1\ X1) \Rightarrow (\forall X2.\ (m1\_matrix\_1\ X2\ (u1\_struct\_0\ k2\_vectsp\_1)\ X0\ X1) \Rightarrow ((v2\_funct\_2\ (k3\_matrtop1\ X0\ X1\ X2)\ (u1\_struct\_0\ (k15\_euclid\ X1))) \Leftrightarrow (k8\_matrix13\ k2\_vectsp\_1\ X2 = X1)))) \tag{1}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(m1\_matrix\_1\ X1\ (u1\_struct\_0\ k2\_vectsp\_1)\ X0\ X0) \Rightarrow ((v2\_funct\_1\ (k3\_matrtop1\ X0\ X0\ X1)) \Leftrightarrow (k12\_matrix\_3\ X0\ k2\_vectsp\_1\ X1 \neq k4\_struct\_0\ k2\_vectsp\_1))) \tag{2}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(v7\_ordinal1\ X1) \Rightarrow (\forall X2.\ (m1\_matrix\_1\ X2\ (u1\_struct\_0\ k2\_vectsp\_1)\ X1\ X0) \Rightarrow ((v2\_funct\_1\ (k3\_matrtop1\ X1\ X0\ X2)) \Leftrightarrow (k8\_matrix13\ k2\_vectsp\_1\ X2 = X1)))) \tag{3}$$

Theorem 1

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(m1\_matrix\_1\ X1\ (u1\_struct\_0\ k2\_vectsp\_1)\ X0\ X0) \Rightarrow ((v2\_funct\_2\ (k3\_matrtop1\ X0\ X0\ X1)\ (u1\_struct\_0\ (k15\_euclid\ X0))) \Leftrightarrow (k12\_matrix\_3\ X0\ k2\_vectsp\_1\ X1 \neq k4\_struct\_0\ k2\_vectsp\_1)))$$