l87_anproj_2 (TMYUTsv5e1F5RbAaVyWBiEzYnRxUJmnKHbC)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v7\_struct\_0 : \iota \Rightarrow o$ be given. Let $v13\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v2\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v5\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v6\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v7\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v8\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $l1\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_numbers : \iota$ be given. Let $k3\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $v4\_collsp : \iota \Rightarrow o$ be given. Let $k5\_anproj\_1 : \iota \Rightarrow \iota$ be given. Let $v3\_anproj\_2 : \iota \Rightarrow o$ be given. Let $v1\_anproj\_2 : \iota \Rightarrow o$ be given. Let $v1\_collsp : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((\neg v7\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v5\_rlvect\_1\ X0) \wedge ((v6\_rlvect\_1\ X0) \wedge ((v7\_rlvect\_1\ X0) \wedge ((v8\_rlvect\_1\ X0) \wedge (l1\_rlvect\_1\ X0))))))))))) \Rightarrow ((\exists X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \wedge (\exists X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \wedge (\exists X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \wedge (\exists X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \wedge (\forall X5.(m1\_subset\_1\ X5\ k1\_numbers) \Rightarrow (\forall X6.(m1\_subset\_1\ X6\ k1\_numbers) \Rightarrow (\forall X7.(m1\_subset\_1\ X7\ k1\_numbers) \Rightarrow (\forall X8.(m1\_subset\_1\ X8\ k1\_numbers) \Rightarrow ((k3\_rlvect\_1\ X0\ (k3\_rlvect\_1\ X0\ (k3\_rlvect\_1\ X0\ (k1\_rlvect\_1\ X0\ X1\ X5)\ (k1\_rlvect\_1\ X0\ X2\ X6))\ (k1\_rlvect\_1\ X0\ X3\ X7))\ (k1\_rlvect\_1\ X0\ X4\ X8) = k4\_struct\_0\ X0) \Rightarrow ((X5 = k6\_numbers) \wedge ((X6 = k6\_numbers) \wedge ((X7 = k6\_numbers) \wedge (X8 = k6\_numbers))))))))))))) \Rightarrow (v1\_anproj\_2\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v5\_rlvect\_1\ X0) \wedge ((v6\_rlvect\_1\ X0) \wedge ((v7\_rlvect\_1\ X0) \wedge ((v8\_rlvect\_1\ X0) \wedge ((v1\_anproj\_2\ X0) \wedge (l1\_rlvect\_1\ X0))))))))))) \Rightarrow ((v1\_collsp\ (k5\_anproj\_1\ X0)) \wedge (v3\_anproj\_2\ (k5\_anproj\_1\ X0))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v5\_rlvect\_1\ X0)\wedge((v6\_rlvect\_1\ X0)\wedge((v7\_rlvect\_1\ X0)\wedge((v8\_rlvect\_1\ X0)\wedge((v1\_anproj\_2\ X0)\wedge(l1\_rlvect\_1\ X0))))))))))\Rightarrow((v1\_collsp\ (k5\_anproj\_1\ X0))\wedge(v4\_collsp\ (k5\_anproj\_1\ X0))) \tag{3}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((\neg v7\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v5\_rlvect\_1\ X0)\wedge((v6\_rlvect\_1\ X0)\wedge((v7\_rlvect\_1\ X0)\wedge((v8\_rlvect\_1\ X0)\wedge(l1\_rlvect\_1\ X0))))))))))\Rightarrow((\exists X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\wedge(\exists X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\wedge(\exists X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\wedge(\exists X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\wedge(\forall X5.(m1\_subset\_1\ X5\ k1\_numbers)\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ k1\_numbers)\Rightarrow(\forall X7.(m1\_subset\_1\ X7\ k1\_numbers)\Rightarrow(\forall X8.(m1\_subset\_1\ X8\ k1\_numbers)\Rightarrow((k3\_rlvect\_1\ X0\ (k3\_rlvect\_1\ X0\ (k3\_rlvect\_1\ X0\ (k1\_rlvect\_1\ X0\ X1\ X5)\ (k1\_rlvect\_1\ X0\ X2\ X6))\ (k1\_rlvect\_1\ X0\ X3\ X7))\ (k1\_rlvect\_1\ X0\ X4\ X8) = k4\_struct\_0\ X0)\Rightarrow((X5 = k6\_numbers)\wedge((X6 = k6\_numbers)\wedge((X7 = k6\_numbers)\wedge(X8 = k6\_numbers))))))))))\Rightarrow((v4\_collsp\ (k5\_anproj\_1\ X0))\wedge(v3\_anproj\_2\ (k5\_anproj\_1\ X0))))$$