

# t5\_lp\_space (TMbhGaWuBYN- MEuzrf1YEP483rYDnVYxgkbN)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $m1\_rlsub\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $g1\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_lp\_space : \iota \Rightarrow \iota$  be given. Let  $k10\_rsspace : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_rsspace : \iota$  be given. Let  $k8\_rsspace : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_rsspace : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_rlsub\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  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  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_rlvect\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow ((r1\_xxreal\_0 np\_1 X0) \Rightarrow (v1\_rlsub\_1 (k2\_lp\_space X0) k7\_rsspace)) \quad (1)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge ((v5\_rlvect\_1 X0) \wedge ((v6\_rlvect\_1 X0) \wedge ((v7\_rlvect\_1 X0) \wedge ((v8\_rlvect\_1 X0) \wedge (l1\_rlvect\_1 X0)))))))))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((v1\_rlsub\_1 X1 X0) \Rightarrow ((v1\_xboole\_0 X1) \vee (m1\_rlsub\_1 (g1\_rlvect\_1 X1 (k10\_rsspace X0 X1) (k8\_rsspace X0 X1) (k9\_rsspace X0 X1)) X0)))) \quad (2)$$

Assume the following.

$$(v13\_algstr\_0 k7\_rsspace) \wedge ((v2\_rlvect\_1 k7\_rsspace) \wedge ((v3\_rlvect\_1 k7\_rsspace) \wedge ((v4\_rlvect\_1 k7\_rsspace) \wedge ((v5\_rlvect\_1 k7\_rsspace) \wedge ((v6\_rlvect\_1 k7\_rsspace) \wedge ((v7\_rlvect\_1 k7\_rsspace) \wedge (v8\_rlvect\_1 k7\_rsspace))))))) \quad (3)$$

Assume the following.

$$(\neg v2\_struct\_0 k7\_rsspace) \wedge (v1\_rlvect\_1 k7\_rsspace) \quad (4)$$

Assume the following.

$$l1\_rlvect\_1 \ k7\_rssize \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k1\_numbers) \Rightarrow ((\neg v1\_xboole\_0 \ (k2\_lp\_space \ X0)) \wedge (m1\_subset\_1 \ (k2\_lp\_space \ X0) \ (k1\_zfmisc\_1 \ (u1\_struct\_0 \ k7\_rssize)))) \tag{6}$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1 \ X0 \ k1\_numbers) \Rightarrow ((r1\_xxreal\_0 \ np\_1 \ X0) \Rightarrow (m1\_rlsub\_1 \ (g1\_rlvect\_1 \ (k2\_lp\_space \ X0) \ (k10\_rssize \ k7\_rssize \ (k2\_lp\_space \ X0)) \ (k8\_rssize \ k7\_rssize \ (k2\_lp\_space \ X0)) \ (k9\_rssize \ k7\_rssize \ (k2\_lp\_space \ X0))) \ k7\_rssize))$$