

# t36\_c0sp1 (TM- FAKvgBm2bdSGEmoG5HrGN6Szrma48fmzW)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $k11\_c0sp1 : \iota \Rightarrow \iota$  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  $v3\_normsp\_0 : \iota \Rightarrow o$  be given. Let  $v4\_normsp\_0 : \iota \Rightarrow o$  be given. Let  $v2\_normsp\_1 : \iota \Rightarrow o$  be given. Let  $v3\_lopban\_1 : \iota \Rightarrow o$  be given. Let  $l1\_normsp\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  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  $v1\_rssize3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_normsp\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_lopban\_2 : \iota \Rightarrow o$  be given. Let  $l1\_funcsdom : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow & (\forall X1. ((v1\_funct\_1 X1) \wedge \\ & (v1\_funct\_2 X1 k5\_numbers (u1\_struct\_0 (k11\_c0sp1 X0))) \wedge (m1\_subset\_1 \\ & X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers (u1\_struct\_0 (k11\_c0sp1 \\ & X0)))))) \Rightarrow ((v1\_rssize3 X1 (k11\_c0sp1 X0)) \Rightarrow (v3\_normsp\_1 X1 ( \\ & k11\_c0sp1 X0)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow & ((v13\_algstr\_0 (k11\_c0sp1 X0)) \wedge \\ & ((v2\_rlvect\_1 (k11\_c0sp1 X0)) \wedge ((v3\_rlvect\_1 (k11\_c0sp1 X0)) \wedge \\ & ((v4\_rlvect\_1 (k11\_c0sp1 X0)) \wedge ((v5\_rlvect\_1 (k11\_c0sp1 X0)) \wedge \\ & ((v6\_rlvect\_1 (k11\_c0sp1 X0)) \wedge ((v7\_rlvect\_1 (k11\_c0sp1 X0)) \wedge \\ & ((v8\_rlvect\_1 (k11\_c0sp1 X0)) \wedge ((v3\_normsp\_0 (k11\_c0sp1 X0)) \wedge \\ & ((v4\_normsp\_0 (k11\_c0sp1 X0)) \wedge (v2\_normsp\_1 (k11\_c0sp1 X0)))))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\neg v2\_struct\_0 (k11\_c0sp1 X0)) \tag{3}$$

Assume the following.

$$\forall X0. (l1\_lopban\_2 X0) \Rightarrow ((l1\_funcsdom X0) \wedge (l1\_normsp\_1 X0)) \tag{4}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (l1\_lopban\_2 (k11\_c0sp1 X0)) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 \\ & X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge ((v5\_rlvect\_1 X0) \wedge \\ & ((v6\_rlvect\_1 X0) \wedge ((v7\_rlvect\_1 X0) \wedge ((v8\_rlvect\_1 X0) \wedge ((v3\_normsp\_0 \\ & X0) \wedge ((v4\_normsp\_0 X0) \wedge ((v2\_normsp\_1 X0) \wedge (l1\_normsp\_1 X0)))))))))) \Rightarrow \\ & ((v3\_lopban\_1 X0) \Leftrightarrow (\forall X1.((v1\_funct\_1 X1) \wedge ((v1\_funct\_2 \\ & X1 \ k5\_numbers (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 \ k5\_numbers (u1\_struct\_0 X0)))))) \Rightarrow ((v1\_rsspace3 \\ & X1 X0) \Rightarrow (v3\_normsp\_1 X1 X0)))) \end{aligned} \quad (6)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow ((\neg v2\_struct\_0 (k11\_c0sp1 X0)) \wedge \\ & ((v13\_algstr\_0 (k11\_c0sp1 X0)) \wedge ((v2\_rlvect\_1 (k11\_c0sp1 X0)) \wedge \\ & ((v3\_rlvect\_1 (k11\_c0sp1 X0)) \wedge ((v4\_rlvect\_1 (k11\_c0sp1 X0)) \wedge \\ & ((v5\_rlvect\_1 (k11\_c0sp1 X0)) \wedge ((v6\_rlvect\_1 (k11\_c0sp1 X0)) \wedge \\ & ((v7\_rlvect\_1 (k11\_c0sp1 X0)) \wedge ((v8\_rlvect\_1 (k11\_c0sp1 X0)) \wedge \\ & ((v3\_normsp\_0 (k11\_c0sp1 X0)) \wedge ((v4\_normsp\_0 (k11\_c0sp1 X0)) \wedge \\ & ((v2\_normsp\_1 (k11\_c0sp1 X0)) \wedge ((v3\_lopban\_1 (k11\_c0sp1 X0)) \wedge \\ & (l1\_normsp\_1 (k11\_c0sp1 X0)))))))))))))) \end{aligned}$$