

## l23\_jgraph\_4

(TMMNK5ThDW9Sk7xJxVxBab7Wr2VV8bfoHiN)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k15\_euclid : \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k3\_pscomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_pscomp\_1 : \iota$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_topmetr : \iota$  be given. Let  $v5\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 ( \\ &u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow ((v1\_funct\_1 (k3\_pscomp\_1 \\ &(k15\_euclid np\_2) k4\_pscomp\_1 X0)) \wedge ((v1\_funct\_2 (k3\_pscomp\_1 \\ &(k15\_euclid np\_2) k4\_pscomp\_1 X0) (u1\_struct\_0 (k1\_pre\_topc \\ &(k15\_euclid np\_2) X0)) (u1\_struct\_0 k3\_topmetr)) \wedge ((v5\_pre\_topc \\ &(k3\_pscomp\_1 (k15\_euclid np\_2) k4\_pscomp\_1 X0) (k1\_pre\_topc \\ &(k15\_euclid np\_2) X0) k3\_topmetr) \wedge (m1\_subset\_1 (k3\_pscomp\_1 \\ &(k15\_euclid np\_2) k4\_pscomp\_1 X0) (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ &(u1\_struct\_0 (k1\_pre\_topc (k15\_euclid np\_2) X0)) (u1\_struct\_0 \\ &k3\_topmetr)))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 ( \\ &u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow (\forall X1. (m1\_subset\_1 \\ &X1 (u1\_struct\_0 (k1\_pre\_topc (k15\_euclid np\_2) X0))) \Rightarrow (k3\_funct\_2 \\ &(u1\_struct\_0 (k1\_pre\_topc (k15\_euclid np\_2) X0)) k1\_numbers \\ &(k3\_pscomp\_1 (k15\_euclid np\_2) k4\_pscomp\_1 X0) X1 = k1\_funct\_1 \\ &k4\_pscomp\_1 X1)) \end{aligned} \tag{2}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 ( \\ & u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow (((v1\_funct\_1 (k3\_pscomp\_1 \\ & (k15\_euclid np\_2) k4\_pscomp\_1 X0)) \wedge ((v1\_funct\_2 (k3\_pscomp\_1 \\ & (k15\_euclid np\_2) k4\_pscomp\_1 X0) (u1\_struct\_0 (k1\_pre\_topc \\ & (k15\_euclid np\_2) X0)) (u1\_struct\_0 k3\_topmetr))) \wedge ((v5\_pre\_topc \\ & (k3\_pscomp\_1 (k15\_euclid np\_2) k4\_pscomp\_1 X0) (k1\_pre\_topc \\ & (k15\_euclid np\_2) X0) k3\_topmetr) \wedge (m1\_subset\_1 (k3\_pscomp\_1 \\ & (k15\_euclid np\_2) k4\_pscomp\_1 X0) (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & (u1\_struct\_0 (k1\_pre\_topc (k15\_euclid np\_2) X0)) (u1\_struct\_0 \\ & k3\_topmetr)))))) \wedge (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ & (k1\_pre\_topc (k15\_euclid np\_2) X0))) \Rightarrow (k3\_funct\_2 (u1\_struct\_0 \\ & (k1\_pre\_topc (k15\_euclid np\_2) X0)) k1\_numbers (k3\_pscomp\_1 \\ & (k15\_euclid np\_2) k4\_pscomp\_1 X0) X1 = k1\_funct\_1 k4\_pscomp\_1 \\ & X1))) \end{aligned}$$