

t36\_pcomps\_1  
(TMEsTvW1TGztPqm5C1eK8jWjspsFJFjhCxN)

October 27, 2020

Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_pcomps\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $k4\_pcomps\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $g1\_metric\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_metric\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((v1\_funct\_1 X1) \wedge \\ & (v1\_funct\_2 X1 (k2\_zfmisc\_1 X0 X0) k1\_numbers) \wedge (m1\_subset\_1 X1 \\ & (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0) k1\_numbers)))))) \Rightarrow \\ & ((\neg v2\_struct\_0 (g1\_metric\_1 X0 X1)) \wedge (v1\_metric\_1 (g1\_metric\_1 \\ & X0 X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1\_funct\_1 X1) \wedge ((v1\_funct\_2 X1 (k2\_zfmisc\_1 \\ & X0 X0) k1\_numbers) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & (k2\_zfmisc\_1 X0 X0) k1\_numbers)))))) \Rightarrow ((r1\_pcomps\_1 X0 X1) \Rightarrow (k4\_pcomps\_1 \\ & X0 X1 = g1\_metric\_1 X0 X1)) \end{aligned} \tag{2}$$

**Theorem 1**

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. ((v1\_funct\_1 X1) \wedge \\ & (v1\_funct\_2 X1 (k2\_zfmisc\_1 X0 X0) k1\_numbers) \wedge (m1\_subset\_1 X1 \\ & (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0) k1\_numbers)))))) \Rightarrow \\ & (\neg (r1\_pcomps\_1 X0 X1) \wedge (v2\_struct\_0 (k4\_pcomps\_1 X0 X1))) \end{aligned}$$