

t20\_eqrel\_1 (TMFmY-  
hQe6LzYrmbL3wP71V1XHt9xVQxrv8s)

October 27, 2020

Let  $v1\_relat\_2 : \iota \Rightarrow o$  be given. Let  $v3\_relat\_2 : \iota \Rightarrow o$  be given. Let  $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_eqrel\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1\_relat\_2 X2) \wedge ((v1\_partfun1 \\ & X2 X0) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0)))))) \Rightarrow ( \\ & (X1 \in X0) \Rightarrow (k4\_tarski X1 X1 \in X2)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v3\_relat\_2 X3) \wedge \\ & ((v1\_partfun1 X3 X0) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & X0 X0)))))) \Rightarrow ((X1 \in k6\_eqrel\_1 X0 X0 X3 X2) \Leftrightarrow (k4\_tarski X1 X2 \in X3)) \end{aligned} \quad (2)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. \forall X1. ((v1\_relat\_2 X1) \wedge ((v3\_relat\_2 X1) \wedge ((v1\_partfun1 \\ & X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0)))))) \Rightarrow \\ & (\forall X2. (X2 \in X0) \Rightarrow (X2 \in k6\_eqrel\_1 X0 X0 X1 X2)) \end{aligned}$$