

## t86\_valued\_2

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Let  $v1\_valued\_2 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  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  $k84\_valued\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_valued\_2 : \iota \Rightarrow \iota$  be given. Let  $k1\_valued\_2 : \iota \Rightarrow \iota$  be given. Let  $k16\_valued\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (v1\_valued\_2 X2) \Rightarrow (\forall X3. \\ & (v1\_valued\_2 X3) \Rightarrow (\forall X4. ((v1\_funct\_1 X4) \wedge (m1\_subset\_1 \\ & X4 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X2)))) \Rightarrow (\forall X5. ((v1\_funct\_1 \\ & X5) \wedge (m1\_subset\_1 X5 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X1 X3)))) \Rightarrow (k84\_valued\_2 \\ & X0 X1 (k2\_valued\_2 (k1\_valued\_2 X2)) X3 (k16\_valued\_2 X0 X2 X4) X5 = \\ & k16\_valued\_2 (k3\_xboole\_0 X0 X1) (k2\_valued\_2 (k3\_xboole\_0 (k1\_valued\_2 \\ & X2) (k1\_valued\_2 X3))) (k84\_valued\_2 X0 X1 X2 X3 X4 X5)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (v1\_valued\_2 X2) \Rightarrow (\forall X3. \\ & (v1\_valued\_2 X3) \Rightarrow (\forall X4. ((v1\_funct\_1 X4) \wedge (m1\_subset\_1 \\ & X4 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X2)))) \Rightarrow (\forall X5. ((v1\_funct\_1 \\ & X5) \wedge (m1\_subset\_1 X5 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X1 X3)))) \Rightarrow (k84\_valued\_2 \\ & X0 X1 X2 X3 X4 X5 = k84\_valued\_2 X1 X0 X3 X2 X5 X4)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. v1\_valued\_2 (k2\_valued\_2 X0) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1\_valued\_2 X1) \wedge ((v1\_funct\_1 \\ & X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))) \Rightarrow ((v1\_funct\_1 \\ & (k16\_valued\_2 X0 X1 X2)) \wedge (m1\_subset\_1 (k16\_valued\_2 X0 X1 X2) ( \\ & k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 (k2\_valued\_2 (k1\_valued\_2 X1)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. k3\_xboole\_0 X0 X1 = k3\_xboole\_0 X1 X0 \quad (5)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(v1\_valued\_2 X2)\Rightarrow(\forall X3. \\ & (v1\_valued\_2 X3)\Rightarrow(\forall X4.((v1\_funct\_1 X4)\wedge(m1\_subset\_1 \\ & X4 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X2))))\Rightarrow(\forall X5.((v1\_funct\_1 \\ & X5)\wedge(m1\_subset\_1 X5 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X1 X3))))\Rightarrow(k84\_valued\_2 \\ & X0 X1 X2 (k2\_valued\_2 (k1\_valued\_2 X3)) X4 (k16\_valued\_2 X1 X3 X5) = \\ & k16\_valued\_2 (k3\_xboole\_0 X0 X1) (k2\_valued\_2 (k3\_xboole\_0 (k1\_valued\_2 \\ & X2) (k1\_valued\_2 X3))) (k84\_valued\_2 X0 X1 X2 X3 X4 X5)))))) \end{aligned}$$