t63_funct_3 (TMHFarxPNd-fQKkL2qmGzVBvhC8jyLHYMz38)

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Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $k13\_funct\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $r2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_funct\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_funct\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_funct\_1\ X3) \wedge ((v1\_funct\_2\ X3\ X0\ X1) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))) \Rightarrow (\forall X4.((v1\_funct\_1\ X4) \wedge ((v1\_funct\_2\ X4\ X0\ X2) \wedge (m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X2))))) \Rightarrow (\neg((X1 = k1\_xboole\_0) \Rightarrow (X0 = k1\_xboole\_0)) \wedge (((X2 = k1\_xboole\_0) \Rightarrow (X0 = k1\_xboole\_0)) \wedge (\neg(k3\_relat\_1\ (k13\_funct\_3\ X3\ X4)\ (k9\_funct\_3\ X1\ X2) = X3) \wedge (k3\_relat\_1\ (k13\_funct\_3\ X3\ X4)\ (k10\_funct\_3\ X1\ X2) = X4)))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ X0\ X1) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))) \Rightarrow (\forall X3.((v1\_funct\_1\ X3) \wedge ((v1\_funct\_2\ X3\ X0\ X1) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))) \Rightarrow ((r2\_funct\_2\ X0\ X1\ X2\ X3) \Leftrightarrow (\forall X4.(m1\_subset\_1\ X4\ X0) \Rightarrow (k1\_funct\_1\ X2\ X4 = k1\_funct\_1\ X3\ X4)))) \tag{2}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_funct\_1\ X3)\wedge ((v1\_funct\_2\ X3\ X0\ X1)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\Rightarrow(\forall X4.((v1\_funct\_1\ X4)\wedge((v1\_funct\_2\ X4\ X0\ X1)\wedge (m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\Rightarrow(\forall X5.((v1\_funct\_1\ X5)\wedge((v1\_funct\_2\ X5\ X0\ X2)\wedge(m1\_subset\_1\ X5\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X2)))))\Rightarrow(\forall X6.((v1\_funct\_1\ X6)\wedge((v1\_funct\_2\ X6\ X0\ X2)\wedge(m1\_subset\_1\ X6\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X2)))))\Rightarrow ((k13\_funct\_3\ X3\ X5 = k13\_funct\_3\ X4\ X6)\Rightarrow(((X1 = k1\_xboole\_0)\wedge(X0\neq k1\_xboole\_0))\vee(((X2 = k1\_xboole\_0)\wedge(X0\neq k1\_xboole\_0))\vee((r2\_funct\_2\ X0\ X1\ X3\ X4)\wedge(r2\_funct\_2\ X0\ X2\ X5\ X6))))))))$$