t24_yellow20 (TMNf8ra46TYNgsqY9TZgVSsi6egJ5z1Zo47)

October 27, 2020

Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v12\_altcat\_1 : \iota \Rightarrow o$ be given. Let $l2\_altcat\_1 : \iota \Rightarrow o$ be given. Let $r1\_yellow20 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_yellow20 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_altcat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_altcat\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(l2\_altcat\_1\ X0) \Rightarrow (\forall X1.(l2\_altcat\_1\ X1) \Rightarrow ((r1\_yellow20\ X0\ X1) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X1)) \Rightarrow (\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X1)) \Rightarrow (\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ (k2\_yellow20\ X0\ X1))) \Rightarrow (\forall X7.(m1\_subset\_1\ X7\ (u1\_struct\_0\ (k2\_yellow20\ X0\ X1))) \Rightarrow (((X6 = X2) \wedge ((X6 = X4) \wedge ((X7 = X3) \wedge (X7 = X5)))) \Rightarrow (k1\_altcat\_1\ (k2\_yellow20\ X0\ X1)\ X6\ X7 = k3\_xboole\_0\ (k1\_altcat\_1\ X0\ X2\ X3)\ (k1\_altcat\_1\ X1\ X4\ X5)))))))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v12\_altcat\_1\ X0) \wedge (l2\_altcat\_1\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (k8\_altcat\_1\ X0\ X1 \in k1\_altcat\_1\ X0\ X1\ X1)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k3\_xboole\_0\ X0\ X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (X3 \in X1))) \tag{3}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v12\_altcat\_1\ X0) \wedge (l2\_altcat\_1\ X0))) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v12\_altcat\_1\ X1) \wedge (l2\_altcat\_1\ X1))) \Rightarrow ((r1\_yellow20\ X0\ X1) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X1)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ (k2\_yellow20\ X0\ X1))) \Rightarrow (((X4 = X2) \wedge ((X4 = X3) \wedge (k8\_altcat\_1\ X0\ X2 = k8\_altcat\_1\ X1\ X3))) \Rightarrow (k8\_altcat\_1\ X0\ X2 \in k1\_altcat\_1\ (k2\_yellow20\ X0\ X1)\ X4\ X4)))))))$$