t26_yellow18 (TMZcnVTEb-HEiq4JFDg22yYfJ7vvG9MDV31D)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_altcat\_1 : \iota \Rightarrow o$ be given. Let $v11\_altcat\_1 : \iota \Rightarrow o$ be given. Let $v12\_altcat\_1 : \iota \Rightarrow o$ be given. Let $l2\_altcat\_1 : \iota \Rightarrow o$ be given. Let $r2\_functor0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3\_yellow18 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_functor0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_yellow18 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2\_yellow18 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_yellow18 : \iota \Rightarrow \iota$ be given. Let $v6\_altcat\_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_altcat\_1\ X0) \wedge ((v11\_altcat\_1\ X0) \wedge ((v12\_altcat\_1\ X0) \wedge (l2\_altcat\_1\ X0))))) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v2\_altcat\_1\ X1) \wedge ((v11\_altcat\_1\ X1) \wedge ((v12\_altcat\_1\ X1) \wedge (l2\_altcat\_1\ X1))))) \Rightarrow ((r1\_functor0\ X0\ X1) \Rightarrow (r1\_yellow18\ X0\ X1))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_altcat\_1\ X0) \wedge ((v11\_altcat\_1\ X0) \wedge ((v12\_altcat\_1\ X0) \wedge (l2\_altcat\_1\ X0))))) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v2\_altcat\_1\ X1) \wedge ((v11\_altcat\_1\ X1) \wedge ((v12\_altcat\_1\ X1) \wedge (l2\_altcat\_1\ X1))))) \Rightarrow (\forall X2.((\neg v2\_struct\_0\ X2) \wedge ((v2\_altcat\_1\ X2) \wedge ((v11\_altcat\_1\ X2) \wedge ((v12\_altcat\_1\ X2) \wedge (l2\_altcat\_1\ X2))))) \Rightarrow ((r2\_yellow18\ X0\ X1) \Rightarrow ((r1\_functor0\ X0\ X2) \Leftrightarrow (r2\_functor0\ X1\ X2))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0) \wedge ((v2\_altcat\_1\ X0) \wedge ((v11\_altcat\_1\ X0) \wedge ((v12\_altcat\_1\ X0) \wedge (l2\_altcat\_1\ X0))))) \wedge ((\neg v2\_struct\_0\ X1) \wedge ((v2\_altcat\_1\ X1) \wedge ((v11\_altcat\_1\ X1) \wedge ((v12\_altcat\_1\ X1) \wedge (l2\_altcat\_1\ X1)))))) \Rightarrow ((r3\_yellow18\ X0\ X1) \Rightarrow (r3\_yellow18\ X1\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0) \wedge (l2\_altcat\_1\ X0)) \wedge ((\neg v2\_struct\_0\ X1) \wedge (l2\_altcat\_1\ X1))) \Rightarrow ((r2\_yellow18\ X0\ X1) \Rightarrow (r2\_yellow18\ X1\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge((v2\_altcat\_1\ X0)\wedge((v12\_altcat\_1\ X0)\wedge(l2\_altcat\_1\ X0))))\wedge((\neg v2\_struct\_0\ X1)\wedge((v2\_altcat\_1\ X1)\wedge((v12\_altcat\_1\ X1)\wedge(l2\_altcat\_1\ X1)))))\Rightarrow((r1\_functor0\ X0\ X1)\Rightarrow(r1\_functor0\ X1\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_altcat\_1\ X0)\wedge((v12\_altcat\_1\ X0)\wedge(l2\_altcat\_1\ X0))))\Rightarrow((\neg v2\_struct\_0\ (k1\_yellow18\ X0))\wedge((v2\_altcat\_1\ (k1\_yellow18\ X0))\wedge((v6\_altcat\_1\ (k1\_yellow18\ X0))\wedge(v12\_altcat\_1\ (k1\_yellow18\ X0))))) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_altcat\_1\ X0)\wedge((v11\_altcat\_1\ X0)\wedge(l2\_altcat\_1\ X0))))\Rightarrow((\neg v2\_struct\_0\ (k1\_yellow18\ X0))\wedge((v2\_altcat\_1\ (k1\_yellow18\ X0))\wedge((v6\_altcat\_1\ (k1\_yellow18\ X0))\wedge(v11\_altcat\_1\ (k1\_yellow18\ X0))))) \tag{7}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_altcat\_1\ X0)\wedge(l2\_altcat\_1\ X0)))\Rightarrow((\neg v2\_struct\_0\ (k1\_yellow18\ X0))\wedge((v2\_altcat\_1\ (k1\_yellow18\ X0))\wedge((v6\_altcat\_1\ (k1\_yellow18\ X0))\wedge(l2\_altcat\_1\ (k1\_yellow18\ X0))))) \tag{8}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_altcat\_1\ X0)\wedge((v11\_altcat\_1\ X0)\wedge((v12\_altcat\_1\ X0)\wedge(l2\_altcat\_1\ X0)))))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v2\_altcat\_1\ X1)\wedge((v11\_altcat\_1\ X1)\wedge((v12\_altcat\_1\ X1)\wedge(l2\_altcat\_1\ X1)))))\Rightarrow((r3\_yellow18\ X0\ X1)\Leftrightarrow(r1\_yellow18\ X0\ (k1\_yellow18\ X1)))) \tag{9}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_altcat\_1\ X0)\wedge(l2\_altcat\_1\ X0)))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v2\_altcat\_1\ X1)\wedge((v6\_altcat\_1\ X1)\wedge(l2\_altcat\_1\ X1))))\Rightarrow((X1 = k1\_yellow18\ X0)\Leftrightarrow(r2\_yellow18\ X0\ X1))) \tag{10}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_altcat\_1\ X0)\wedge((v11\_altcat\_1\ X0)\wedge((v12\_altcat\_1\ X0)\wedge(l2\_altcat\_1\ X0)))))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v2\_altcat\_1\ X1)\wedge((v11\_altcat\_1\ X1)\wedge((v12\_altcat\_1\ X1)\wedge(l2\_altcat\_1\ X1)))))\Rightarrow((r2\_functor0\ X0\ X1)\Rightarrow(r3\_yellow18\ X0\ X1)))$$