

# t20\_int\_7 (TMZBNE- nwqFZqT8FR52ZT4yXk2X6EnkGRYE)

October 27, 2020

Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_int\_2 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_int\_7 : \iota \Rightarrow \iota$  be given. Let  $k9\_int\_3 : \iota \Rightarrow \iota$  be given. Let  $k8\_group\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v5\_group\_1 : \iota \Rightarrow o$  be given. Let  $l3\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $k6\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $g3\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_int\_7 : \iota \Rightarrow \iota$  be given. Let  $k2\_int\_7 : \iota \Rightarrow \iota$  be given. Let  $v2\_group\_1 : \iota \Rightarrow o$  be given. Let  $v3\_group\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge ((v5\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0))) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge \\ & m1\_subset\_1 X2 (u1\_struct\_0 X0))) \Rightarrow (k8\_group\_1 X0 X1 X2 = k6\_algstr\_0 \\ & X0 X1 X2) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v7\_ordinal1 X0) \wedge (v1\_int\_2 X0)) \Rightarrow (\forall X1. (m1\_subset\_1 \\ & X1 (u1\_struct\_0 (g3\_algstr\_0 (k1\_int\_7 X0) (k2\_int\_7 X0)))) \Rightarrow ( \\ & \forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 (g3\_algstr\_0 (k1\_int\_7 \\ & X0) (k2\_int\_7 X0)))) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (u1\_struct\_0 \\ & (k9\_int\_3 X0))) \Rightarrow (\forall X4. (m1\_subset\_1 X4 (u1\_struct\_0 (k9\_int\_3 \\ & X0))) \Rightarrow (((X1 = X3) \wedge (X4 = X2)) \Rightarrow (k8\_group\_1 (k9\_int\_3 X0) X3 X4 = k6\_algstr\_0 \\ & (g3\_algstr\_0 (k1\_int\_7 X0) (k2\_int\_7 X0) X1 X2)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v7\_ordinal1 X0) \wedge (v1\_int\_2 X0)) \Rightarrow ((\neg v2\_struct\_0 \\ & (k3\_int\_7 X0)) \wedge ((v2\_group\_1 (k3\_int\_7 X0)) \wedge ((v3\_group\_1 (k3\_int\_7 \\ & X0)) \wedge ((v5\_group\_1 (k3\_int\_7 X0)) \wedge (l3\_algstr\_0 (k3\_int\_7 X0)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v7\_ordinal1 X0) \wedge (v1\_int\_2 X0)) \Rightarrow (k3\_int\_7 X0 = g3\_algstr\_0 \\ & (k1\_int\_7 X0) (k2\_int\_7 X0)) \end{aligned} \tag{4}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v7\_ordinal1\ X0)\wedge(v1\_int\_2\ X0))\Rightarrow(\forall X1.(m1\_subset\_1 \\ & \quad X1\ (u1\_struct\_0\ (k3\_int\_7\ X0)))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ ( \\ & \quad u1\_struct\_0\ (k3\_int\_7\ X0)))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0 \\ & \quad (k9\_int\_3\ X0)))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ (k9\_int\_3 \\ & \quad X0))))\Rightarrow(((X1 = X3)\wedge(X2 = X4))\Rightarrow(k8\_group\_1\ (k3\_int\_7\ X0)\ X1\ X2 = k8\_group\_1 \\ & \quad (k9\_int\_3\ X0)\ X3\ X4)))))) \end{aligned}$$