

t22\_int\_2

(TMZGLMwZU2BEzUY6RLAcFFZQz5Vd97NY8wp)

October 27, 2020

Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $r1\_int\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_int\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. ((v1\_int\_1 X0) \wedge (v1\_int\_1 X1)) \Rightarrow (v7\_ordinal1 (k3\_int\_2 X0 X1)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1\_int\_1 X0) \Rightarrow (\forall X1. (v1\_int\_1 X1) \Rightarrow (\forall X2. \\ & (v7\_ordinal1 X2) \Rightarrow ((X2 = k3\_int\_2 X0 X1) \Leftrightarrow ((r1\_int\_1 X2 X0) \wedge ((r1\_int\_1 \\ & X2 X1) \wedge (\forall X3. (v1\_int\_1 X3) \Rightarrow (((r1\_int\_1 X3 X0) \wedge (r1\_int\_1 \\ & X3 X1)) \Rightarrow (r1\_int\_1 X3 X2)))))))))) \quad (2) \end{aligned}$$

**Theorem 1**

$$\begin{aligned} & \forall X0. (v1\_int\_1 X0) \Rightarrow (\forall X1. (v1\_int\_1 X1) \Rightarrow (\forall X2. \\ & (v1\_int\_1 X2) \Rightarrow (((r1\_int\_1 X2 X0) \wedge (r1\_int\_1 X2 X1)) \Rightarrow (r1\_int\_1 \\ & X2 (k3\_int\_2 X0 X1)))))) \end{aligned}$$