

155\_wsierp\_1 (TM-  
NxR4w6PsvkvqrEwhuMGsUYm66jBThJz3o)

October 27, 2020

Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $r1\_int\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_int\_2 : \iota \Rightarrow \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $k16\_complex1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_int\_1 X0) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (((r1\_int\_1 \\ & X0 X1) \Rightarrow (r1\_int\_1 X0 (k4\_xcmplx\_0 X1))) \wedge (((r1\_int\_1 X0 (k4\_xcmplx\_0 \\ & X1)) \Rightarrow (r1\_int\_1 X0 X1)) \wedge ((r1\_int\_1 X0 X1) \Rightarrow (r1\_int\_1 (k4\_xcmplx\_0 \\ & X0) X1)) \wedge ((r1\_int\_1 (k4\_xcmplx\_0 X0) X1) \Rightarrow (r1\_int\_1 X0 X1)) \wedge \\ & ((r1\_int\_1 X0 X1) \Rightarrow (r1\_int\_1 (k4\_xcmplx\_0 X0) (k4\_xcmplx\_0 X1))) \wedge \\ & (((r1\_int\_1 (k4\_xcmplx\_0 X0) (k4\_xcmplx\_0 X1)) \Rightarrow (r1\_int\_1 X0 X1)) \wedge \\ & (((r1\_int\_1 X0 (k4\_xcmplx\_0 X1)) \Rightarrow (r1\_int\_1 (k4\_xcmplx\_0 X0) X1)) \wedge \\ & ((r1\_int\_1 (k4\_xcmplx\_0 X0) X1) \Rightarrow (r1\_int\_1 X0 (k4\_xcmplx\_0 X1)))))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v1\_int\_1 X0) \Rightarrow (k1\_int\_2 X0 = k16\_complex1 X0) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xreal\_0 X0) \Rightarrow (((r1\_xreal\_0 k6\_numbers X0) \Rightarrow (k16\_complex1 \\ & X0 = X0)) \wedge ((-r1\_xreal\_0 k6\_numbers X0) \Rightarrow (k16\_complex1 X0 = k4\_xcmplx\_0 \\ & X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.(v1\_int\_1 X0) \Rightarrow (v1\_xreal\_0 X0) \quad (4)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v1\_int\_1 X0) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow ((r1\_int\_1 \\ & X0 X1) \Leftrightarrow (r1\_int\_1 X0 (k1\_int\_2 X1)))) \end{aligned}$$