

t20\_int\_1 (TMH-  
WDiqD6KPhz6LyyhSuFLE5i6hKZEq1XrH)

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Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r2\_int\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v1\_xcmplx\_0 X0) \wedge ((v1\_xcmplx\_0 X1) \wedge (v1\_xcmplx\_0 X2))) \Rightarrow (k3\_xcmplx\_0 (k3\_xcmplx\_0 X0 X1) X2 = k3\_xcmplx\_0 X0 (k3\_xcmplx\_0 X1 X2)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_int\_1 X0) \wedge (v1\_int\_1 X1)) \Rightarrow (v1\_int\_1 (k3\_xcmplx\_0 X0 X1)) \quad (2)$$

Assume the following.

$$\forall X0. (v1\_int\_1 X0) \Rightarrow (\forall X1. (v1\_int\_1 X1) \Rightarrow (\forall X2. (v1\_int\_1 X2) \Rightarrow ((r2\_int\_1 X0 X1 X2) \Leftrightarrow (\exists X3. (v1\_int\_1 X3) \wedge (k3\_xcmplx\_0 X2 X3 = k6\_xcmplx\_0 X0 X1)))))) \quad (3)$$

Assume the following.

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

Assume the following.

$$\forall X0. (v1\_int\_1 X0) \Rightarrow (v1\_xreal\_0 X0) \quad (5)$$

**Theorem 1**

$$\forall X0. (v1\_int\_1 X0) \Rightarrow (\forall X1. (v1\_int\_1 X1) \Rightarrow (\forall X2. (v1\_int\_1 X2) \Rightarrow (\forall X3. (v1\_int\_1 X3) \Rightarrow (\forall X4. (v1\_int\_1 X4) \Rightarrow (((k3\_xcmplx\_0 X0 X1 = X2) \wedge (r2\_int\_1 X3 X4 X2)) \Rightarrow (r2\_int\_1 X3 X4 X0)))))))$$