

## t10\_euler\_1

(TMV29B5tpJXJNycWDKeTztwggw5agDem6TMv)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_int\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  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  $k6\_numbers : \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.(v1\_int\_1 X0) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (\forall X2. \\ (v1\_int\_1 X2) \Rightarrow ((\exists X3.(v1\_int\_1 X3) \wedge (\exists X4.(v1\_int\_1 \\ X4) \wedge (k2\_xcmplx\_0 (k3\_xcmplx\_0 X0 X3) (k3\_xcmplx\_0 X1 X4) = X2))) \Leftrightarrow \\ (r1\_int\_1 (k3\_int\_2 X0 X1) X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_int\_1 X0) \wedge (v1\_int\_1 X1)) \Rightarrow (r1\_int\_1 X0 X0) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_int\_1 X0) \Rightarrow ((r1\_int\_1 X0 k6\_numbers) \wedge ((r1\_int\_1 np\_1 X0) \wedge (r1\_int\_1 (k4\_xcmplx\_0 np\_1) X0))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_int\_1 X0) \wedge (v1\_int\_1 X1)) \Rightarrow (v1\_int\_1 (k3\_xcmplx\_0 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0.(v1\_int\_1 X0) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow ((r1\_int\_2 X0 X1) \Leftrightarrow (k3\_int\_2 X0 X1 = np\_1))) \quad (5)$$

Assume the following.

$$\forall X0.(v1\_int\_1 X0) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow ((r1\_int\_1 X0 X1) \Leftrightarrow (\exists X2.(v1\_int\_1 X2) \wedge (X1 = k3\_xcmplx\_0 X0 X2)))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0)\wedge(v1\_xcmplx\_0 X1))\Rightarrow(k3\_xcmplx\_0 X0 X1 = k3\_xcmplx\_0 X1 X0) \quad (7)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0)\Rightarrow(v1\_xcmplx\_0 X0) \quad (8)$$

Assume the following.

$$\forall X0.(v1\_int\_1 X0)\Rightarrow(v1\_xreal\_0 X0) \quad (9)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0)\Rightarrow(v1\_xreal\_0 X0) \quad (10)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0)\Rightarrow(v1\_int\_1 X0) \quad (11)$$

**Theorem 1**

$$\forall X0.(v7\_ordinal1 X0)\Rightarrow(\forall X1.(v7\_ordinal1 X1)\Rightarrow((r1\_int\_2 X0 X1)\Rightarrow(\forall X2.(v7\_ordinal1 X2)\Rightarrow(\exists X3.(v1\_int\_1 X3)\wedge(\exists X4.(v1\_int\_1 X4)\wedge(k2\_xcmplx\_0 (k3\_xcmplx\_0 X3 X0) (k3\_xcmplx\_0 X4 X1) = X2))))))$$