t53_cqc_the1
(TMYg7VPsUwTTdTD6vQFM2hHFoajxPiqT18z)

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Let $m1\_qc\_lang1 : \iota{\Rightarrow}o$ be given. Let $m1\_subset\_1 : \iota{\Rightarrow}\iota{\Rightarrow}o$ be given. Let $k1\_zfmisc\_1 : \iota{\Rightarrow}\iota$ be given. Let $k3\_cqc\_lang : \iota{\Rightarrow}\iota$ be given. Let $m2\_subset\_1 : \iota{\Rightarrow}\iota{\Rightarrow}\iota{\Rightarrow}o$ be given. Let $k9\_qc\_lang1 : \iota{\Rightarrow}\iota$ be given. Let $r3\_cqc\_the1 : \iota{\Rightarrow}\iota{\Rightarrow}\iota{\Rightarrow}o$ be given. Let $k8\_cqc\_lang : \iota{\Rightarrow}\iota{\Rightarrow}\iota{\Rightarrow}\iota$ be given. Let $k6\_cqc\_lang : \iota{\Rightarrow}\iota{\Rightarrow}\iota$ be given. Let $k7\_cqc\_lang : \iota{\Rightarrow}\iota{\Rightarrow}\iota{\Rightarrow}\iota$ be given. Let $k1\_cqc\_the1 : \iota{\Rightarrow}\iota{\Rightarrow}\iota$ be given. Let $m2\_finseq\_1 : \iota{\Rightarrow}\iota{\Rightarrow}o$ be given. Let $k2\_zfmisc\_1 : \iota{\Rightarrow}\iota{\Rightarrow}\iota$ be given. Let $k2\_cqc\_the1 : \iota$ be given. Let $r2\_cqc\_the1 : \iota{\Rightarrow}\iota{\Rightarrow}\iota{\Rightarrow}o$ be given. Let $k3\_cqc\_the1 : \iota{\Rightarrow}\iota{\Rightarrow}\iota$ be given. Let $v1\_xboole\_0 : \iota{\Rightarrow}o$ be given. Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0){\Rightarrow}(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1$$
$$(k3\_cqc\_lang\ X0))){\Rightarrow}(\forall X2.(m2\_subset\_1\ X2\ (k9\_qc\_lang1$$
$$X0)\ (k3\_cqc\_lang\ X0)){\Rightarrow}(\forall X3.(m2\_subset\_1\ X3\ (k9\_qc\_lang1$$
$$X0)\ (k3\_cqc\_lang\ X0)){\Rightarrow}(\forall X4.(m2\_subset\_1\ X4\ (k9\_qc\_lang1$$
$$X0)\ (k3\_cqc\_lang\ X0)){\Rightarrow}(k8\_cqc\_lang\ X0\ (k8\_cqc\_lang\ X0\ X2\ X3)\ (k8\_cqc\_lang$$
$$X0\ (k6\_cqc\_lang\ X0\ (k7\_cqc\_lang\ X0\ X3\ X4))\ (k6\_cqc\_lang\ X0\ (k7\_cqc\_lang$$
$$X0\ X2\ X4))) \in k1\_cqc\_the1\ X0\ X1))))))$$

$$(1)$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0){\Rightarrow}(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1$$
$$(k3\_cqc\_lang\ X0))){\Rightarrow}(ReplSep\ (toset\ (\lambda X2 : \iota.m2\_subset\_1$$
$$X2\ (k9\_qc\_lang1\ X0)\ (k3\_cqc\_lang\ X0)))\ (\lambda X2 : \iota.\exists X3.$$
$$(m2\_finseq\_1\ X3\ (k2\_zfmisc\_1\ (k3\_cqc\_lang\ X0)\ k2\_cqc\_the1)){\wedge}$$
$$((r2\_cqc\_the1\ X0\ X1\ X3){\wedge}(k3\_cqc\_the1\ X0\ X3 = X2)))\ (\lambda X2 : \iota.$$
$$X2) = k1\_cqc\_the1\ X0\ X1))$$

$$(2)$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0){\Rightarrow}(\neg v1\_xboole\_0\ (k3\_cqc\_lang\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0){\wedge}((\neg v1\_xboole\_0\ X1){\wedge}$$
$$(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)))){\Rightarrow}(\forall X2.(m2\_subset\_1$$
$$X2\ X0\ X1){\Rightarrow}(m1\_subset\_1\ X2\ X0)) \tag{4}$$

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Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (m1\_subset\_1\ (k3\_cqc\_lang\ X0)\ (k1\_zfmisc\_1$$
$$(k9\_qc\_lang1\ X0)))$$

(5)

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1$$
$$(k3\_cqc\_lang\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k9\_qc\_lang1$$
$$X0)) \Rightarrow ((r3\_cqc\_the1\ X0\ X1\ X2) \Leftrightarrow (X2 \in k1\_cqc\_the1\ X0\ X1))))$$

(6)

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1$$
$$X0)) \Rightarrow (v1\_xboole\_0\ X1))$$

(7)

Theorem 1

$$\forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1$$
$$(k3\_cqc\_lang\ X0))) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ (k9\_qc\_lang1$$
$$X0)\ (k3\_cqc\_lang\ X0)) \Rightarrow (\forall X3.(m2\_subset\_1\ X3\ (k9\_qc\_lang1$$
$$X0)\ (k3\_cqc\_lang\ X0)) \Rightarrow (\forall X4.(m2\_subset\_1\ X4\ (k9\_qc\_lang1$$
$$X0)\ (k3\_cqc\_lang\ X0)) \Rightarrow (r3\_cqc\_the1\ X0\ X1\ (k8\_cqc\_lang\ X0\ (k8\_cqc\_lang$$
$$X0\ X2\ X3)\ (k8\_cqc\_lang\ X0\ (k6\_cqc\_lang\ X0\ (k7\_cqc\_lang\ X0\ X3\ X4))$$
$$(k6\_cqc\_lang\ X0\ (k7\_cqc\_lang\ X0\ X2\ X4))))))))))$$