

axiom

$$(x \in \{x \mid x \neq x\}) \implies (x \neq x)$$

logic rule

$$(x = x) \implies (x \notin \{x \mid x \neq x\})$$

axiom

$$x = x$$

logic rule

$$x \notin \{x \mid x \neq x\}$$

logic rule

$$(\forall x \mid x \notin \{x \mid x \neq x\})$$