**a)** Solution to a

$$\forall x.x \in \mathbf{Z} \implies |x| \in \mathbf{N} \wedge |x| \geq 0$$

**b)** Solution to b

**c)** Solution to c

## a)

**Lemma 1 (Lorem)** *ipsum*

PROOF.    Proof of lemma                                                                $\square$

## b)

## c)