

Q02)

a)  $\forall p \in \mathbb{P}, \exists x \in \mathbb{N}, \exists y \in \mathbb{N}, x^2 - p^2 y^2 = 1$

b)  $\exists p \in \mathbb{P}, \forall x \in \mathbb{N}, \forall y \in \mathbb{N}, x^2 - p^2 y^2 \neq 1$

c) if the mathematical statement was proved then it

must be true.