

Math Homework

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12/23/2025

Problem 1

a)

Proof

- > Let $a = 0$ and arbitrary $b \in \mathbb{N}$.
- > $0 \in \mathbb{N}$, so $a \in \mathbb{N}$.
- > By definition of natural numbers, 0 is the smallest natural number. Thus, the statement $0 \leq b$ holds true, since arbitrary b can only be ≥ 0 .
- > Thus, $a \leq b$ when $a = 0$, satisfying the condition \square .

b)

$$x^2 - 2x - 8 = 0; (x - 4)(x + 2) = 0, x = 4, -2.$$

Roots of Quadratic Equation: 4, -2.