

QUIZ

1. What is the precise meaning of the following formal statement?

$$\exists m \in \mathbb{Z}^+ \forall n \in \mathbb{Z}^+ (m \leq n)$$

2. What does this say, EXACTLY?

$$\forall P \{ P(1) \wedge \forall k \in \mathbb{Z}^+ [P(k) \Rightarrow P(k+1)] \} \Rightarrow \forall n \in \mathbb{Z}^+ P(n)$$

3. Prove that the solution to the Tower of Hanoi is as follows:

$$H_n = 2^n - 1 \quad \forall n \in \mathbb{Z}^+.$$