Analysis 1
Quiz 1

Name:_____

You have 10 minutes to complete this quiz. If you have a question raise your hand and remain seated. In order to receive full credit your answer must be **complete**, **legible** and **correct**. Show your work, and give adequate explanations.

1. Write down a formal sentence that is true in a structure when the structure has at most one element.

$$(\forall x)(\forall y)(x = y)$$

2. The formal sentence "$(\forall m)(\exists N)(\forall i)((i > N) \to (|a_i| < \frac{1}{m}))$" expresses what property of the sequence $(a_i)_{i\in\mathbb{N}}$?

$(a_i)_{i\in\mathbb{N}}$ is a null sequence.