Set Theory
Quiz 10

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. Give an example of a finite ordinal that is not a Hartogs number, and then give an example of an infinite ordinal that is not a Hartogs number.

- For any set A, the inclusion map $\iota\colon 0 \to A$ is an injection, so $h(A) \neq 0$ for any set A.
- Any Hartogs number is an initial ordinal, so $\omega+1$ cannot be a Hartogs number.