Self Test **Name: _____**
Mortality
Fall 2006

1. You generate a catch curve for a population. The regression line through the data has a slope of -0.4 (i.e., Z = 0.4). What is the percent mortality over 1 year of life (A)? (5 points)

$S=e^{-Z}$
$S=e^{-.4}$
S=0.67 or 67% annual survival
A= 1-0.67 or 33% annual mortality

2. In the example above, what is the cumulative percent mortality over three years? (5 points)

The wrong way:

A= 1-0.67 or 33% annual mortality, so three year mortality = 3 x 33% or 99%

The right way:

$S_{3\ years}= e^{-3Z}$
$S_{3\ years}= e^{-1.2}$
$S_{3\ years}$= 0.3 or 30% survival over three years
A_{3years} = 1-0.3 or 70% mortality over three years