Population Problems (taken from Hyke & Schneider) **You must show all of your work to get credit!**

1. One thousand two hundred and seventy deer are living on an island that is eight hundred and thirty square kilometers in size. What is the population density of the deer per square kilometer?

1. A city with 53,340 people has 876 births. What is the birth rate (as a percentage and per thousand)?

1. Another city experiences 12 deaths for each thousand people. What is the death rate (as a percentage and per thousand)?

1. A village of 23,473 people has 2,342 births and 473 deaths. What is the growth rate for this village?

1. A small country of 744,785 people has 44,678 immigrants and 12,567 emigrants. They also experience 15,898 deaths and 35,665 births. What is the growth rate of this small country?

1. How many years will it take for this country to double its population?

1. If a country were doubling its population every 35 years, what would its growth rate be?
2. In 2009, the population of mice in Upper Fremont is 200,000 and growing at a rate of 2% each

Year.

* 1. If the rate of population growth remains constant, calculate the mouse population in 2044. 400,000
	2. If the rate of population growth remains constant, calculate the mouse population in

2079

1. The population of starlings in Lower Fremont was 20,000 in 1967. In 2009 the population is 160,000. Calculate the percentage rate of starling population growth in Lower Fremont since 1967.

10. In 2009, the population of butterflies in West Fremont is 60,000, and growing at a rate of 1.4% each year.

1. If the rate of population growth remains constant, determine the year in which the population will double. 2059
2. If the rate of population growth remains constant, determine the year in which the population will reach

240,000.