

Exponential Growth Word Problems

Date_____ Period_____

- 1) You deposit \$750 in a bank account that will earn simple interest of 3.5% per year. How much will your investment be worth after 12 years?
- 2) In 1985, there were 275 cell phone subscribers in the small town of China Grove. Subscribers increased by 40% each year after 1985. How many cell phone subscribers were there in 1994?
- 3) A certain type of bacteria doubles every hour. If you start with 1 bacteria, how many will you have after one full day?
- 4) The population of Winnemucca, Nevada can be modeled by the function $P = 6191 * 1.04^x$ where x is the number of years since 1990. What was the population in 1990? By what percent did the population increase each year?
- 5) The foundation of a house has 1200 termites. The termites grow at a rate of about 2.4% each day. How many termites are there after one week? About how long until the number of termites has doubled?