Unit 12 – Day 8 Practice Name:

*Some of these problems will use a different context than putting money into a savings account. Even though they don’t deal with money, you will still be using the same formula that we used in today’s notes.*

**1:** $3000 is deposited in an account that pays 4% annual interest compounded monthly. How much will be in the account after 20 years?

**2:** Russell’s health and fitness blog is really taking off. The blog had 45,000 commenters this month and the number of commenters has consistently gone up by 10% per month. How many commenters can Russell expect to have in 1 year?

**3:** The population of a small town started at 233 people in 1999. If the population grows at a rate of 16% per year, how many people are now in the town in 2006? *(Hint: think about how many years are between 1999 and 2006)*

**4:** $3000 is deposited in an account that pays 4% annual interest compounded quarterly. How much will be in the account after 20 years?

5: The value of a rare baseball card increases every year at a rate of 4%. Today, the card is worth $300. The owner expects to sell the card as soon as the value is over $600. How many years will the owner wait before selling the card? Round your answer to the nearest whole number.

**6:** A bank A, $600 is invested with an interest rate of 5% compounded annually. At Bank B, $500 is invested with an interest rate of 6% compounded quarterly. Which account will have more money at the end of 10 years?