Sec1	HW 3-5 Growth and Decay

Write an expression to model each situation, then find the solution.

1. Find a bank account balance if the account starts with $100, has an annual rate of 4%, and the money left in the account for 12 years.

2. In 1985, there were 285 cell phone subscribers in the small town of Centerville. The number of subscribers increased by 75% per year after 1985. How many cell phone subscribers were in Centerville in 1994?

3. The population of Winnemucca, Nevada, can be modeled by $P = 6191(1.04)^t$ where t is the number of years since 1990. What was the population in 1990? By what percent did the population increase by each year?

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4. You have inherited land that was purchased for $30,000 in 1960. The value of the land increased by approximately 5% every 10 years. What is the approximate value of the land in the year 2020?

5. Jonathan opened a savings account and deposited $600.00 as principal. The account earns 1.5% interest every year. What is the balance after 5 years?

6. You borrowed $10,400 for 4 years at 12.7% interest every year. What is the total you will pay back?

7. Your investment of $18,100 at 13.6% interest will be worth how much after 7 ½ years?

| 47099.47 | 42213.01 | 160.10 | 43872 |
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