Lesson 7.5 Practice: Exponential Growth and Decay

School Launch · Algebra I · Unit 7: Exponents and Exponential Functions · Worksheet A

No calculator

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. A town of 2{,}900 people grows 10% per year. Write the model and find the value after 7 years (nearest whole number). EASY

2. A town of 200 people grows 10% per year. Write the model and find the value after 10 years (nearest whole number). EASY

3. A town of 4{,}800 people grows 4% per year. Write the model and find the value after 6 years (nearest whole number). EASY

4. A town of 3{,}100 people grows 13% per year. Write the model and find the value after 6 years (nearest whole number). MEDIUM

5. A town of 1{,}800 people grows 7% per year. Write the model and find the value after 5 years (nearest whole number). MEDIUM

6. A car worth $2,900 loses 12% of its value per year. Write the model and find the value after 5 years (nearest whole number). MEDIUM

7. A town of 2{,}200 people grows 12% per year. Write the model and find the value after 11 years (nearest whole number). MEDIUM

8. A car worth $1,800 loses 11% of its value per year. Write the model and find the value after 6 years (nearest whole number). HARD

9. A town of 4{,}300 people grows 9% per year. Write the model and find the value after 7 years (nearest whole number). HARD

10. A car worth $2,900 loses 7% of its value per year. Write the model and find the value after 10 years (nearest whole number). HARD