Lesson 13.3 Practice: Choosing a Model: Linear, Exponential or Quadratic

School Launch · Algebra I · Unit 13: Data and Statistics: Scatter Plots and Lines of Fit · 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. Which model fits the table — linear, exponential or quadratic? x: 0, 1, 2, 3, 4; y: 6, 8, 10, 12, 14. Explain using differences or ratios. EASY

2. Which model fits the table — linear, exponential or quadratic? x: 0, 1, 2, 3, 4; y: 8, 24, 72, 216, 648. Explain using differences or ratios. EASY

3. Which model fits the table — linear, exponential or quadratic? x: 0, 1, 2, 3, 4; y: 6, 11, 16, 21, 26. Explain using differences or ratios. EASY

4. Which model fits the table — linear, exponential or quadratic? x: 0, 1, 2, 3, 4; y: 5, 9, 21, 41, 69. Explain using differences or ratios. MEDIUM

5. Which model fits the table — linear, exponential or quadratic? x: 0, 1, 2, 3, 4; y: 2, 5, 8, 11, 14. Explain using differences or ratios. MEDIUM

6. Which model fits the table — linear, exponential or quadratic? x: 0, 1, 2, 3, 4; y: 3, 6, 12, 24, 48. Explain using differences or ratios. MEDIUM

7. Which model fits the table — linear, exponential or quadratic? x: 0, 1, 2, 3, 4; y: 5, 8, 11, 14, 17. Explain using differences or ratios. MEDIUM

8. Which model fits the table — linear, exponential or quadratic? x: 0, 1, 2, 3, 4; y: 3, 5, 7, 9, 11. Explain using differences or ratios. HARD

9. Which model fits the table — linear, exponential or quadratic? x: 0, 1, 2, 3, 4; y: 7, 12, 17, 22, 27. Explain using differences or ratios. HARD

10. Which model fits the table — linear, exponential or quadratic? x: 0, 1, 2, 3, 4; y: 3, 5, 11, 21, 35. Explain using differences or ratios. HARD