Name: _____ Date: _____

Not all data is linear! A curved scatter may fit an EXPONENTIAL or QUADRATIC model better. Match the shape. Last two are challe

1. Data doubles each step: 2, 4, 8, 16. Linear or exponential model?

show your work

2. Data rises by a fixed +3 each step. Which model?

show your work

3. A ball's height goes up then down (a parabola). Best model?

show your work

4. A savings account grows by 5% per year. Model type?

show your work

5. Points that fall then rise (a valley). Best model?

show your work

6. Population that keeps multiplying. Linear or exponential?

show your work

7. How can you tell exponential from linear in a TABLE?

show your work

8. Which model for temperature of coffee cooling toward room temp over time?

show your work

9. ★ CHALLENGE

A table: 3, 6, 12, 24, 48. State the model type, the ratio, and the next value.

show your work

10. ★ CHALLENGE

A quadratic model f(x) = -x^2 + 6x fits some data. What is the maximum predicted value and where?

show your work