

Name: _____

Date: _____

Adds a fixed AMOUNT each step -> linear ($y = mx + b$). Multiplies by a fixed FACTOR -> exponential ($y = a \cdot b^x$). Last two are challenges.

1. Saves \$20 each week: linear or exponential?

show your work

2. Grows 5% each year: which?

show your work

3. Table 3, 6, 9, 12: model?

show your work

4. Table 3, 6, 12, 24: model?

show your work

5. Write the model: start 100, +15 each month.

show your work

6. Write the model: start 100, $\times 1.5$ each month.

show your work

7. A car loses 12% of value yearly from \$20,000. Model type and equation?

show your work

8. Which grows more after 20 steps: +50 each step from 100, or $\times 1.1$ each step from 100?

show your work

9. Data (0,5),(1,15),(2,45),(3,135). * CHALLENGE
Model type, and write the equation.

show your work

10. Two plans reach \$500: A is $100 + 40x$ (linear), B is $100(1.35)^x$. * CHALLENGE
Estimate which hits \$500 in fewer steps.

show your work