

Exponential Functions and Growth



Name: _____ Date: _____

Use the material to work through each task. Show the requested response.

Invented growth model

Invented practice data or scenario; not a report of a real study.
An illustrative model starts at 3 units and doubles each step: $y = 3 \times 2^x$. This is a mathematical practice model, not a real population prediction.

Step x	Units y
0	3
1	6
2	12
3	24

1. Find y at x = 4.

2. What factor multiplies y at each step?

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3. What does the coefficient 3 represent?

4. Solve $2^x = 32$.

5. For $y = 16 \times (1/2)^x$, find y when $x = 3$.

6. How does this doubling table differ from a linear table?
