

Name: _____

Unit 6: Exponents & Exponential Functions



Date: _____

Bell: _____

Homework 7: Graphing Exponential Functions

**** This is a 2-page document! ****

Directions: Classify each function as an exponential growth or an exponential decay.

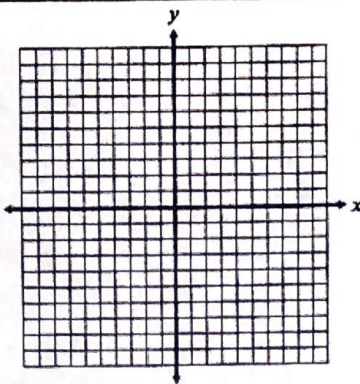
1. $y = 8 \cdot \left(\frac{1}{4}\right)^x$

2. $y = \left(\frac{7}{2}\right)^x$

3. $y = \frac{1}{3} \cdot 5^x$

Directions: Graph each function using a table of values, then identify its key characteristics.

4. $y = \left(\frac{1}{2}\right)^x$



Growth / Decay

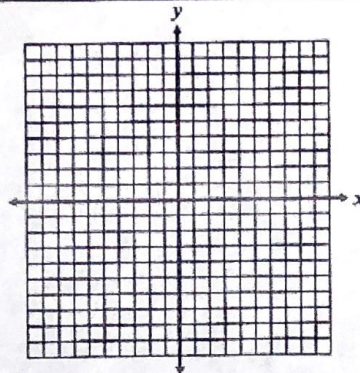
Domain: _____

Range: _____

y-intercept: _____

Asymptote: _____

5. $y = 3^x - 5$



Growth / Decay

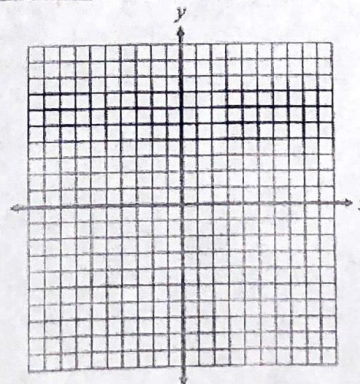
Domain: _____

Range: _____

y-intercept: _____

Asymptote: _____

6. $y = 2^x + 1$



Growth / Decay

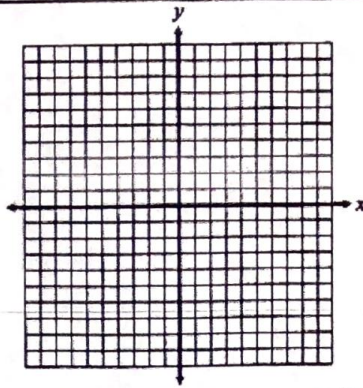
Domain: _____

Range: _____

y-intercept: _____

Asymptote: _____

7. $y = \frac{1}{2} \cdot 4^x$



Growth / Decay

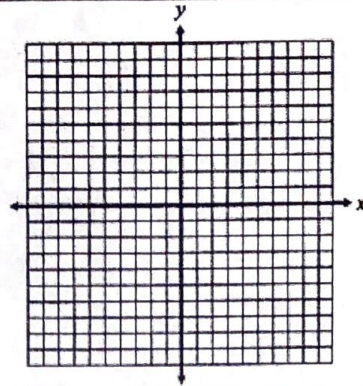
Domain: _____

Range: _____

y-intercept: _____

Asymptote: _____

8. $y = 2 \cdot \left(\frac{1}{3}\right)^x$



Growth / Decay

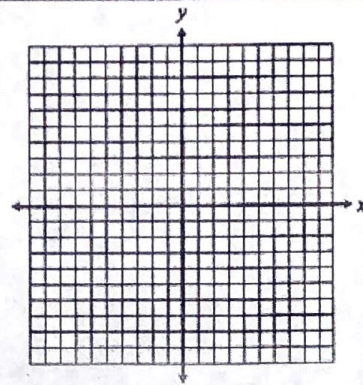
Domain: _____

Range: _____

y-intercept: _____

Asymptote: _____

9. $y = \left(\frac{2}{3}\right)^x + 2$



Growth / Decay

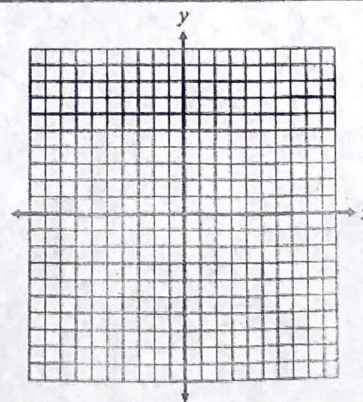
Domain: _____

Range: _____

y-intercept: _____

Asymptote: _____

10. $y = \frac{1}{2} \cdot 2^x - 4$



Growth / Decay

Domain: _____

Range: _____

y-intercept: _____

Asymptote: _____