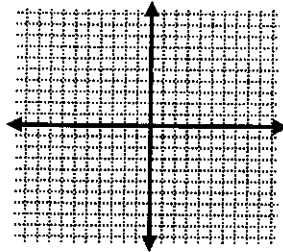
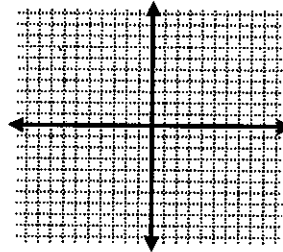


1- Draw an example of the following:

Exponential growth

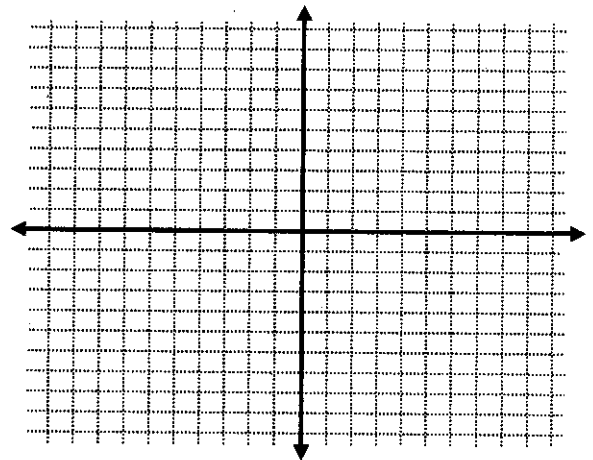


Exponential decay



2- Graph the exponential function and asymptote

$$f(x) = 2 \cdot \frac{1}{2}^x + 1$$



3- Fill in the characteristics

Domain: _____

Range: _____

Zero: _____

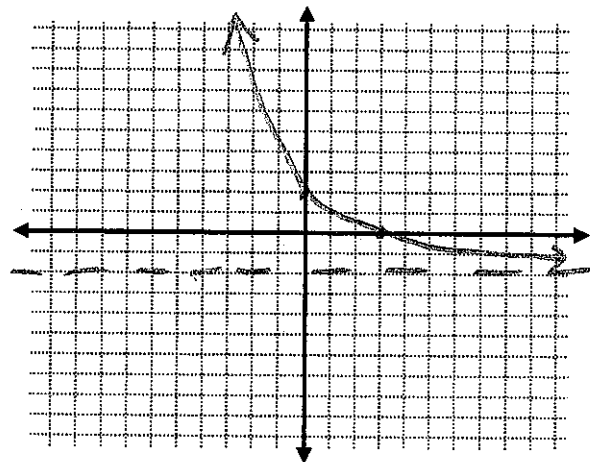
Y-int: _____

Circle: Growth or Decay

Circle: Inc. or Dec. Interval: _____

As $x \rightarrow -\infty, y \rightarrow$ _____

As $x \rightarrow \infty, y \rightarrow$ _____

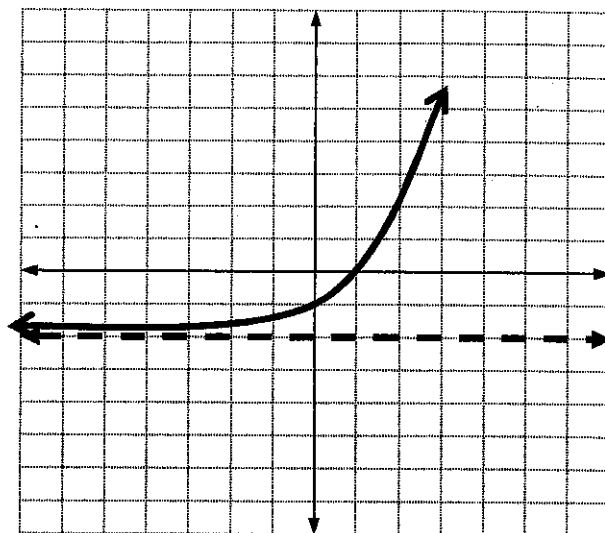


Math 2 QUIZ: Characteristics of Exponentials

Name _____

Given the exponential at right $y = 2^x - 2$ provide the following information.

1. Domain: _____ 2. Range: _____
3. Asymptote: _____ 4. Zeros: _____
5. Intercept: _____ 6. Interval of Increase: _____
7. Interval of Decrease: _____
8. End Behavior: _____



9. Rate of Change from $-2 \leq x \leq 2$.

Given the equations below record the answers with the given characteristics. You may use the equations more than once and each question may have more than one answer.

- A $y = 2^{x-1} + 1$ B. $y = 2(\frac{1}{3})^x - 1$ C. $y = 2^x - 1$ D. $y = 2(\frac{3}{2})^{x-1}$

10. Which equation(s) has(have) an asymptote of $y = -1$? _____

11. Which equation(s) has(have) a domain of all real numbers? _____

12. Which equation (s) has(have) are decay? _____