

2/10

Change base formula

$$\log_a X = \frac{\log_b X}{\log_b a}$$

X, b, a
all positive

$$a \neq 1$$
$$b \neq 1$$

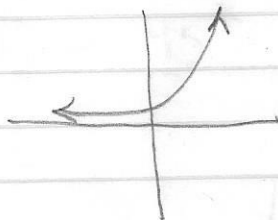
ex)

Exponential Functions

$$y = b^x$$

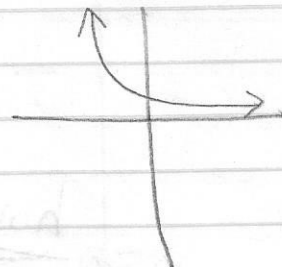
Growth

$$|b| > 1$$



Decay

$$0 < |b| < 1$$



A. $f(x) = \frac{3}{4} \cdot (4)^{x+1}$

B. $f(x) = \left(\frac{1}{2}\right)^{x-3}$

C. $f(x) = \left(\frac{5}{2}\right)^x - 3$