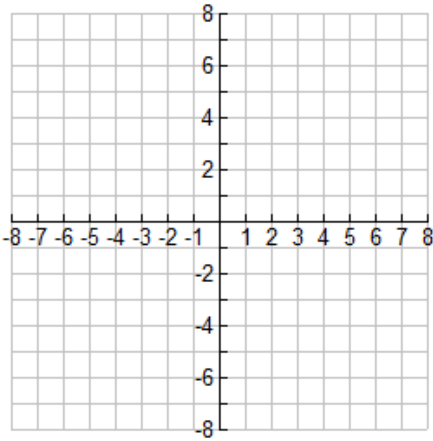


I. For each of the following: state the translation(s), asymptote, domain, and range. Write the domain and range in INTERVAL NOTATION. Do this WITHOUT graphing the function.

Given Exp/Log Function	Translation(s)	Asymptote	Domain	Range
1.) $f(x) = 3^x - 2$				
2.) $f(x) = \log_4(x - 3)$				
3.) $f(x) = (1/2)^{x+4}$				
4.) $f(x) = \log(x) + 5$				
5.) $f(x) = e^{x-3} + 1$				
6.) $f(x) = \log_2(x + 2) - 4$				
7.) $f(x) = \ln(x - 5) + 3$				
8.) $f(x) = 4^{x+1} - 3$				

II. Graph each of the functions below and then state the asymptote, domain, and range. Write the domain and range in INTERVAL NOTATION.

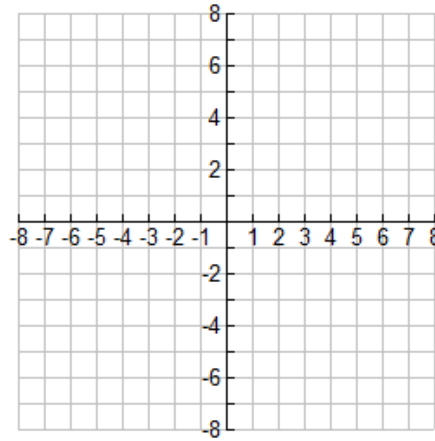
9.) $y = (3)^{x-4} - 5$



Asymptote: _____

D: _____ R: _____

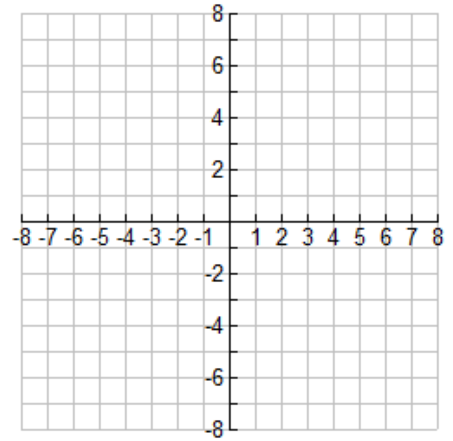
10.) $y = \left(\frac{1}{2}\right)^{x+3} + 6$



Asymptote: _____

D: _____ R: _____

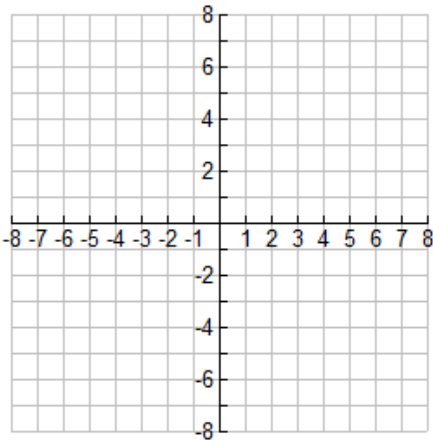
11.) $y = 3\left(\frac{1}{4}\right)^{x-2} - 7$



Asymptote: _____

D: _____ R: _____

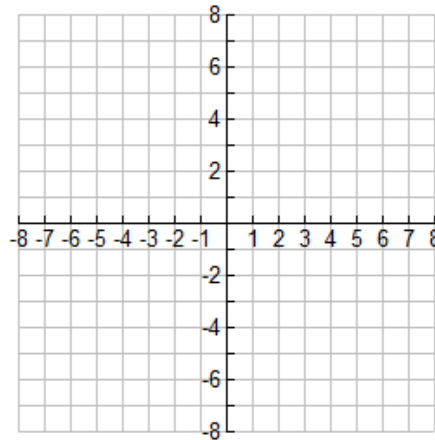
12.) $y = \log_2(x - 4) - 2$



Asymptote: _____

D: _____ R: _____

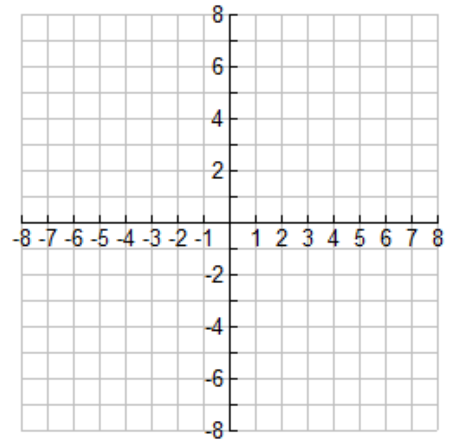
13.) $y = -\log_3(x + 1) + 3$



Asymptote: _____

D: _____ R: _____

14.) $y = \frac{1}{2}\log_4(x + 5) - 6$



Asymptote: _____

D: _____ R: _____