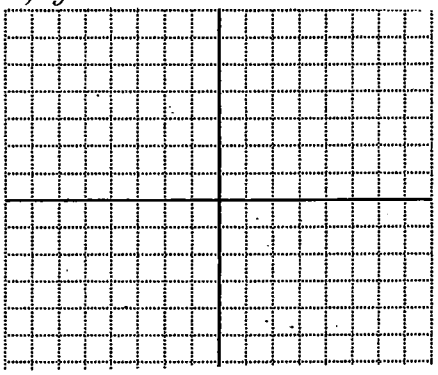
Analysis Do Not Use a Calculator! Name_____

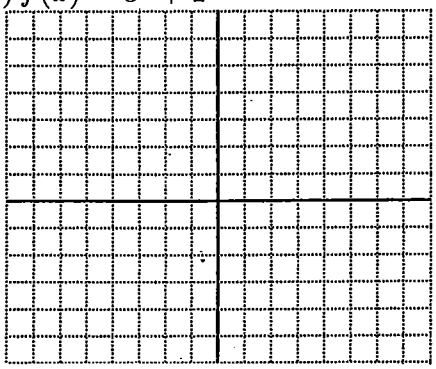
Graphs of Exponentials

Sketch a graph of the following functions. Label important points and asymptotes.

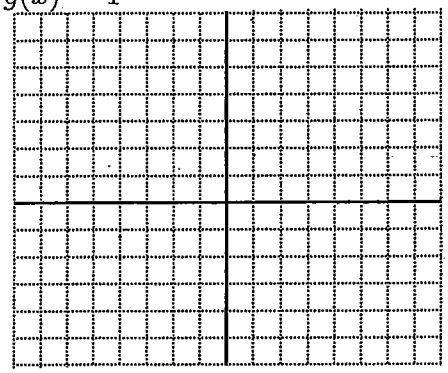
1) $y = 2^{x+1}$



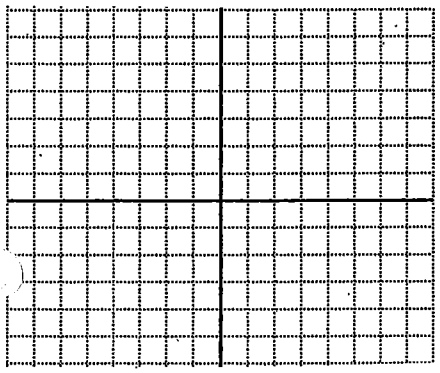
2) $f(x) = 3^x + 1$



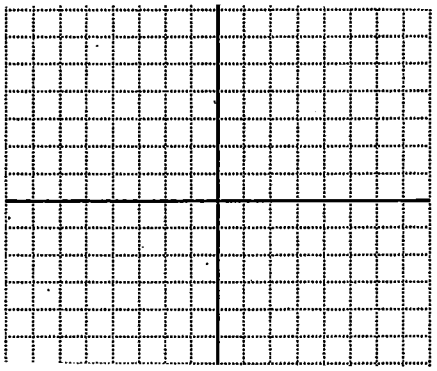
3) $g(x) = 4^{-x}$



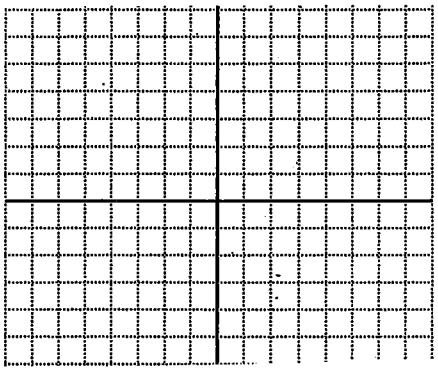
4) $y = -5^x$



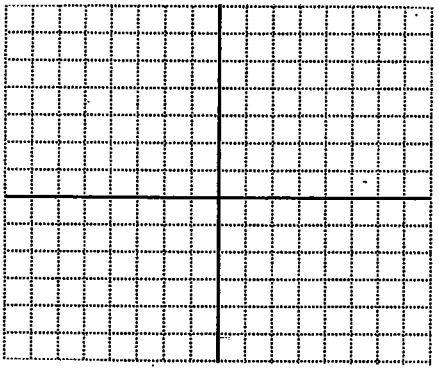
5) $f(x) = e^{x-2} + 3$



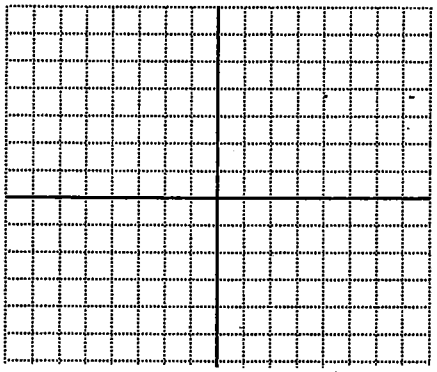
6) $h(x) = 10^x - 4$



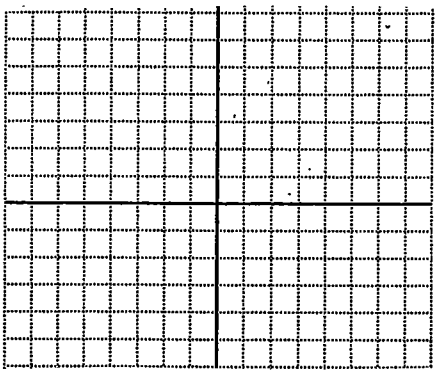
7) $g(x) = e^{x-3} - 2$



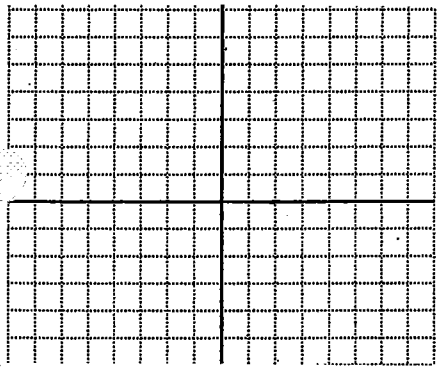
8) $h(x) = -4^x$



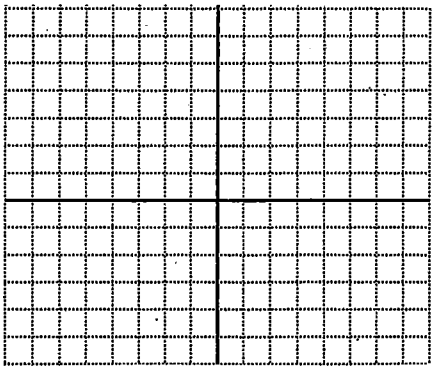
9) $f(x) = 10^{-x} + 5$



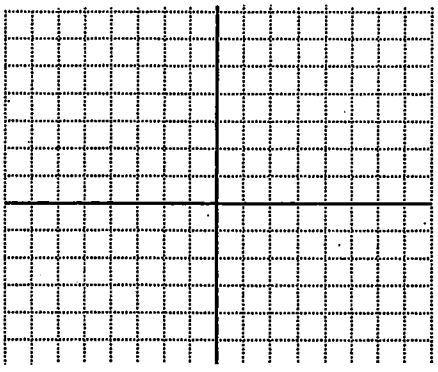
10) $f(x) = 2.9^x$



11) $g(x) = \left(\frac{1}{2}\right)^x$

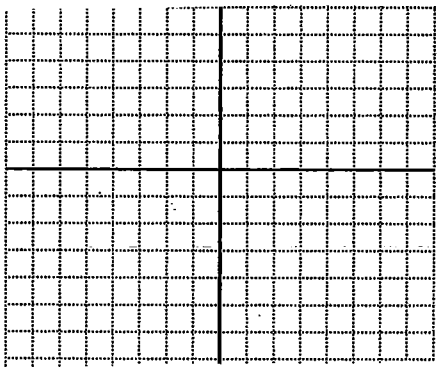


12) $f(x) = \left(\frac{2}{3}\right)^x$

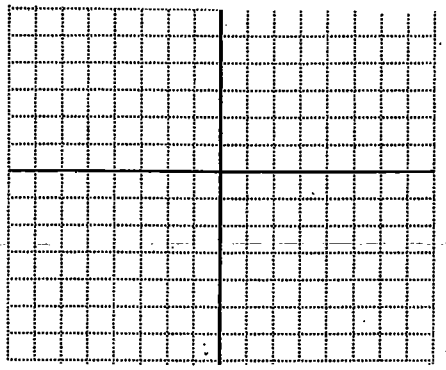


Sketch a graph of the following functions. Clearly mark important points and asymptotes!

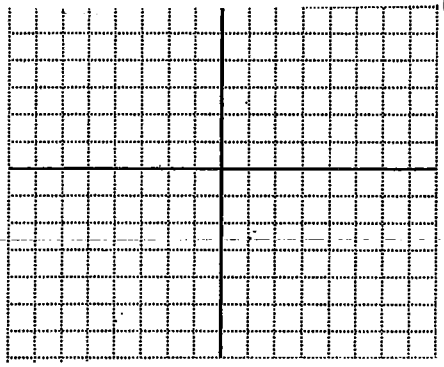
13) $f(x) = \log x + 1$



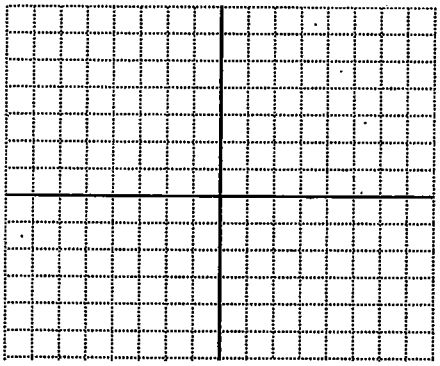
14) $f(x) = \log(x + 1)$



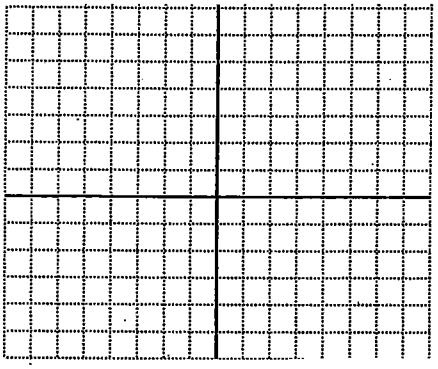
15) $g(x) = \ln(-x)$



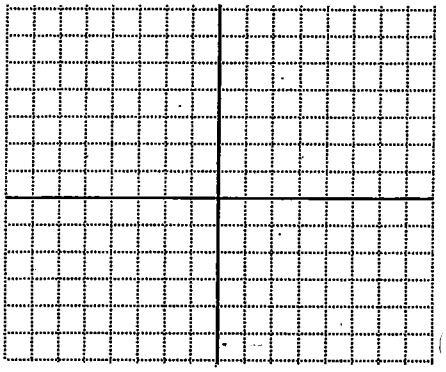
16) $y = \log_3 x - 2$



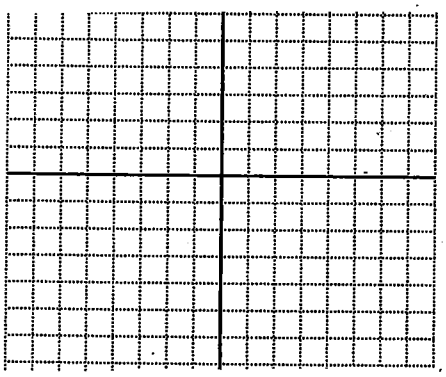
17) $y = \log_2(x - 3)$



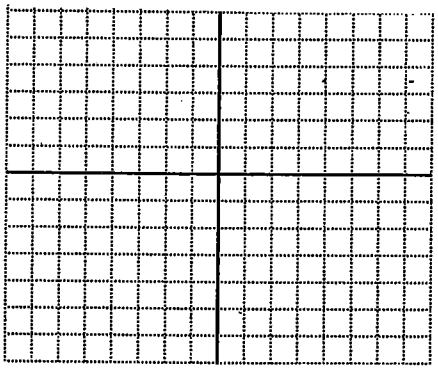
18) $y = -\log_4 x$



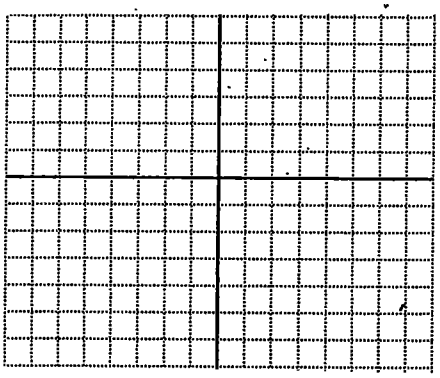
19) $g(x) = \ln(x + 3)$



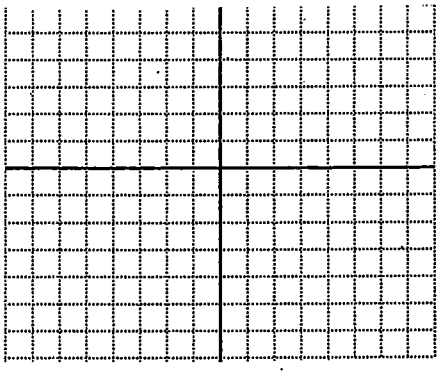
20) $f(x) = -\log_5 x + 3$



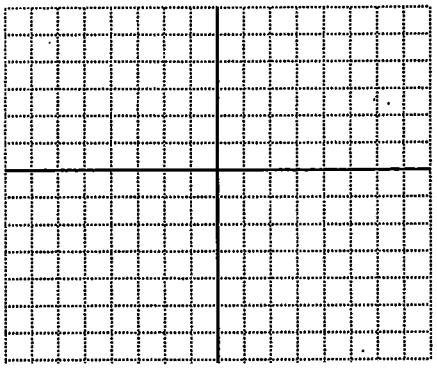
21) $h(x) = \ln(x - 3) + 4$



22) $f(x) = \log_3(x + 2) - 3$



23) $y = -\ln(x + 5) - 7$



24) $y = \log_2 x - 5$