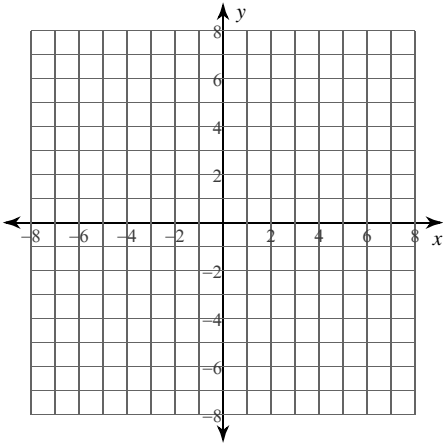


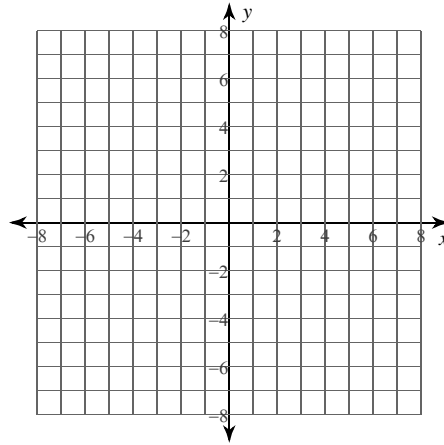
Graphing Logarithms

Sketch the graph of each function.

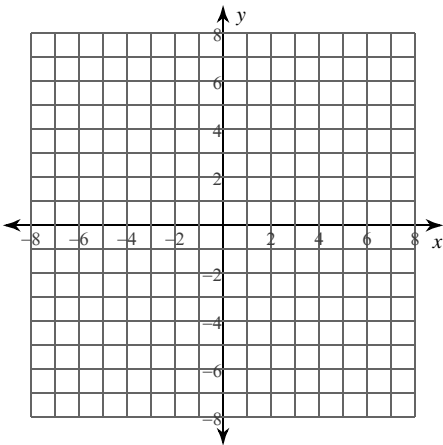
1) $y = \log(x + 5)$



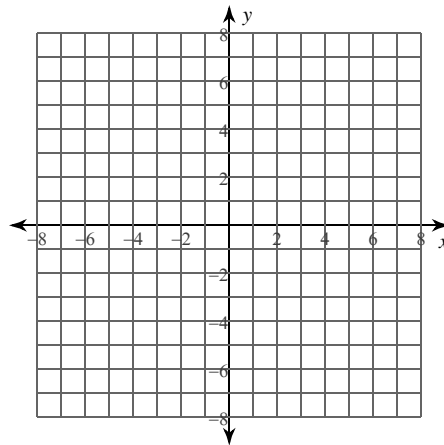
2) $y = \log(x - 2) - 4$



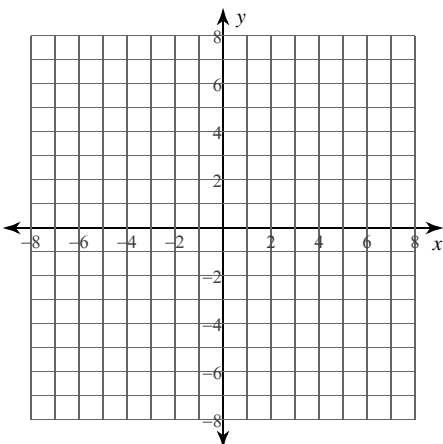
3) $y = \log(x + 4) - 5$



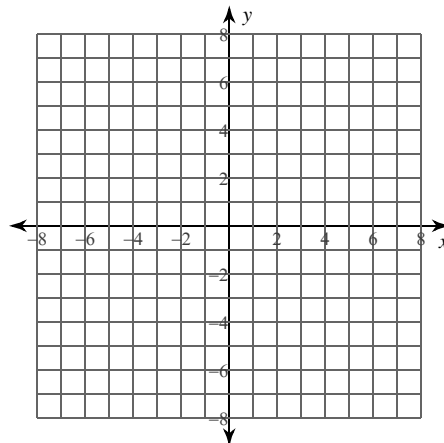
4) $y = \log(x + 1) - 1$

**Identify the domain and range of each. Then sketch the graph.**

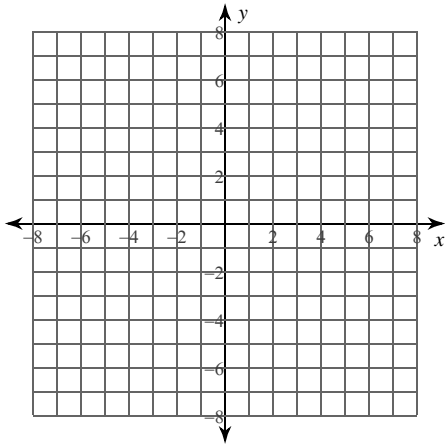
5) $y = \log_3(x - 1) - 3$



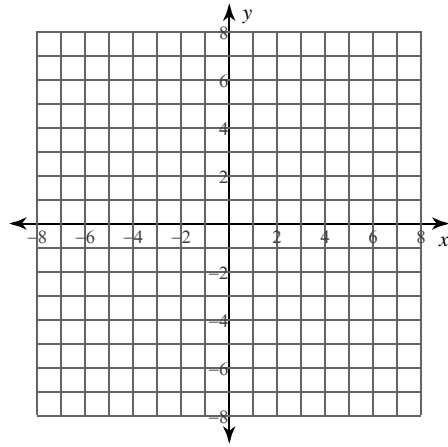
6) $y = \log_{\frac{1}{3}}(x + 4)$



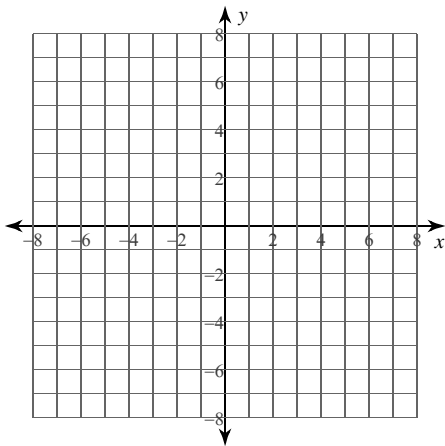
7) $y = \log_4 (x - 1) - 2$



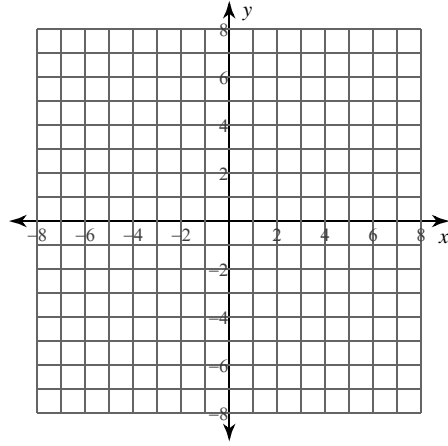
8) $y = \log_3 (x + 6) + 2$



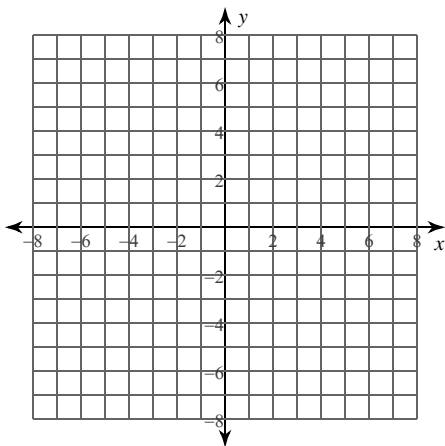
9) $y = \log_2 (4x + 16) - 2$



10) $y = \log (3x - 4) - 4$



11) $y = \log_2 (2x - 1) - 4$



12) $y = \log_2 (4x - 8)$

