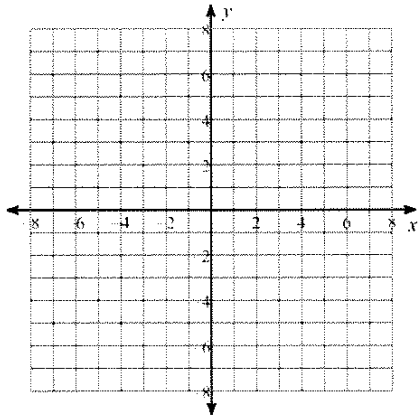


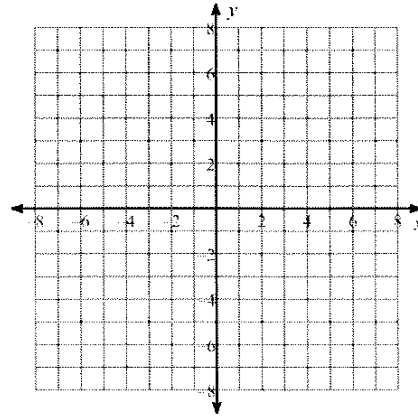
## Graphing Logarithmic Functions III

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

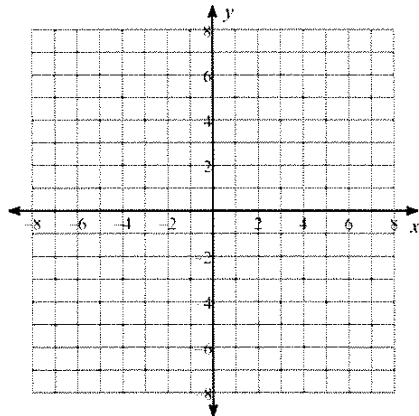
1)  $y = \log_3(x + 5) + 2$



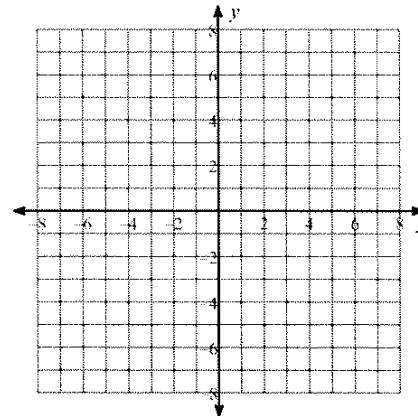
2)  $y = \log_{\frac{1}{4}}(x - 1) + 3$



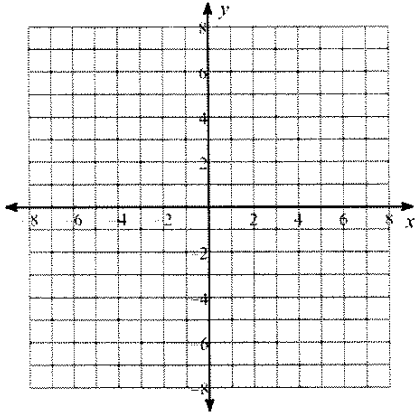
3)  $y = \log_4(x - 1) - 2$



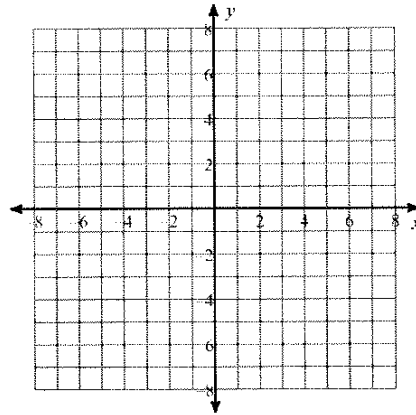
4)  $y = \log_4(x - 1) + 2$



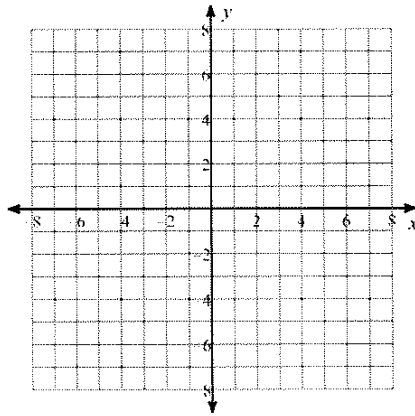
$$5) y = \log_6(x - 1) + 5$$



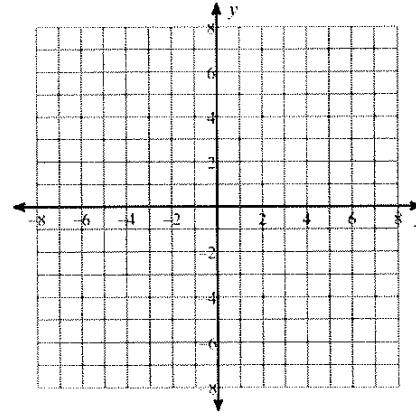
$$6) y = \log_{\frac{1}{5}}(x + 1)$$



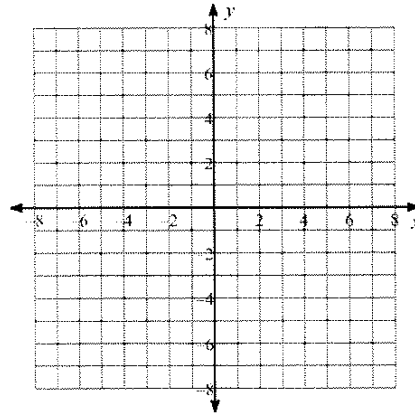
$$7) y = \log_4(x - 1) - 4$$



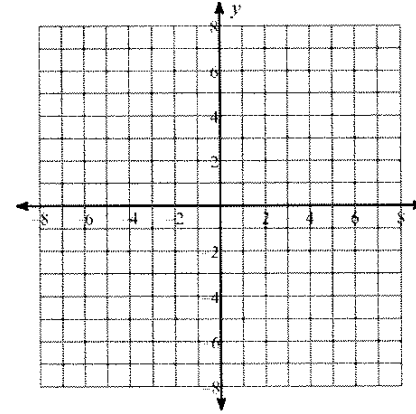
$$8) y = \log_4(x - 3) - 1$$



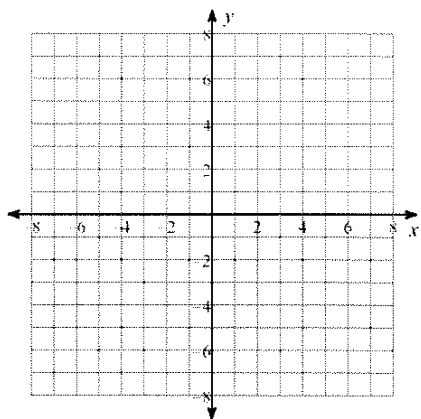
$$9) y = \log_6(x - 1) + 4$$



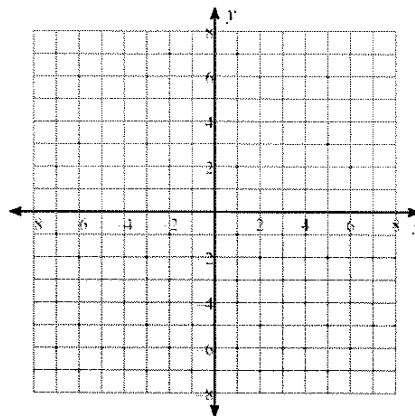
$$10) y = \log_3(x - 1) - 1$$



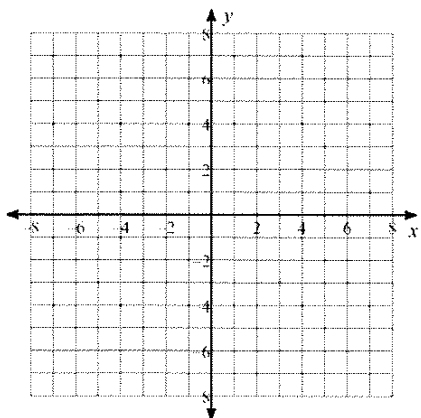
$$11) y = \log_{\frac{1}{5}}(x - 1) + 2$$



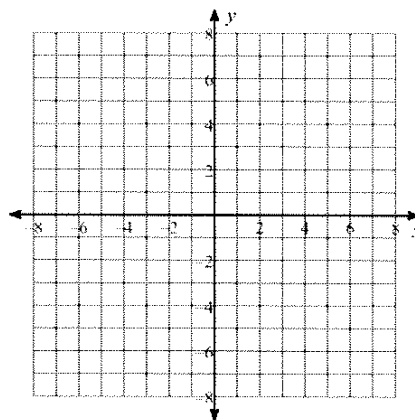
$$12) y = \log_6(x - 1) - 2$$



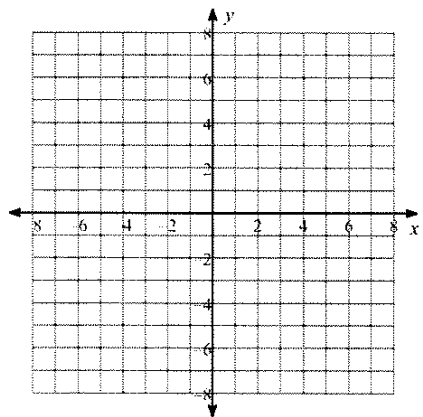
$$13) y = \log_3(x + 3) - 1$$



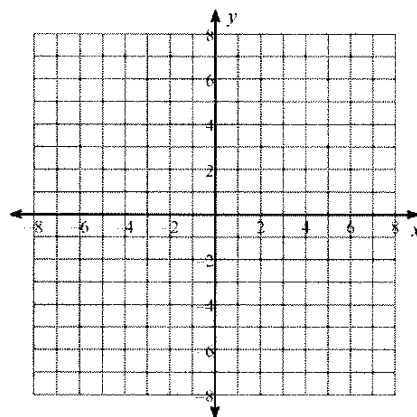
$$14) y = \log_{\frac{1}{4}}(x - 1) - 2$$



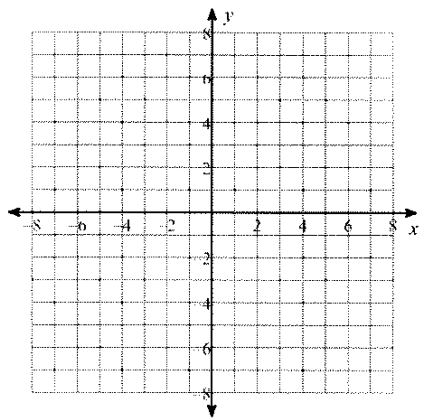
15)  $y = \log_3(x + 6) - 2$



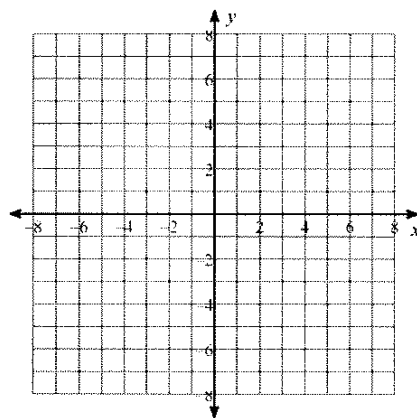
16)  $y = \log_2(x - 2) + 3$



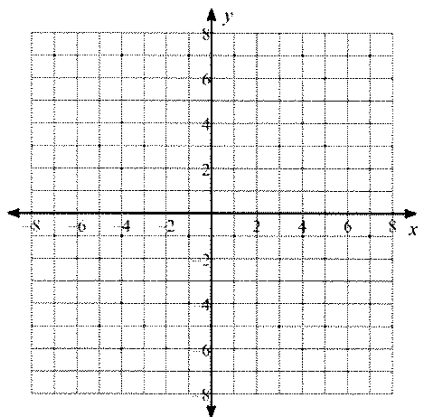
17)  $y = \log_6(x - 1) + 1$



18)  $y = \log_3(x - 1) + 4$



19)  $y = \log_4(x - 1) + 1$



20)  $y = \log_2(x - 1)$

