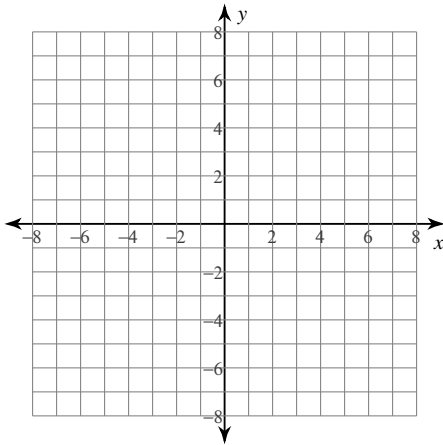


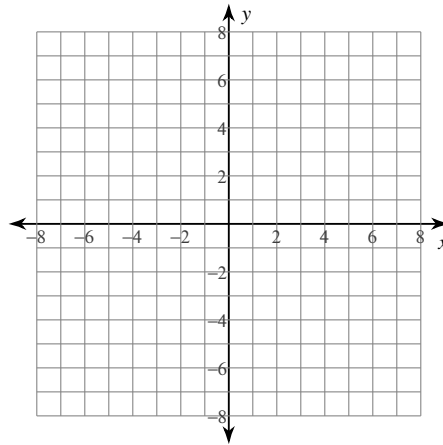
Graphing Logarithms

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

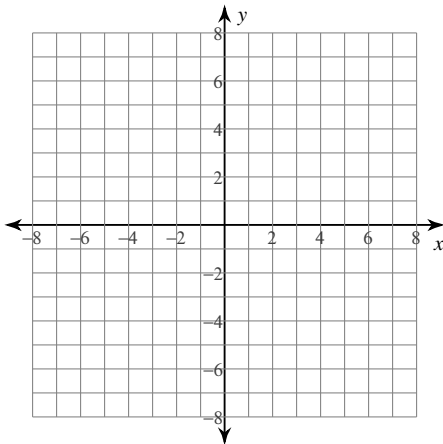
1) $y = \log_6(x - 1) - 5$



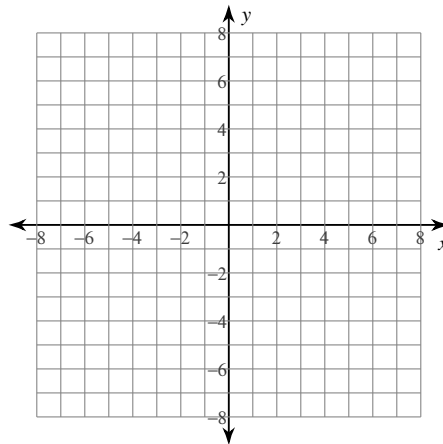
2) $y = \log_5(x - 1) + 3$



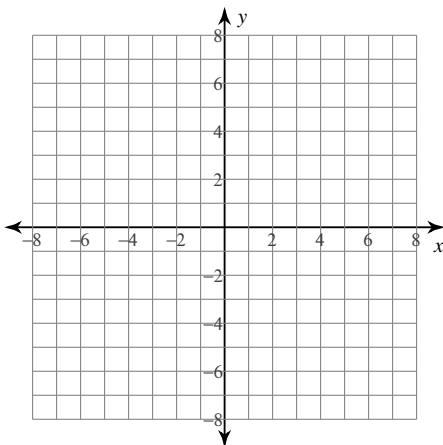
3) $y = \log_6(x - 3) - 5$



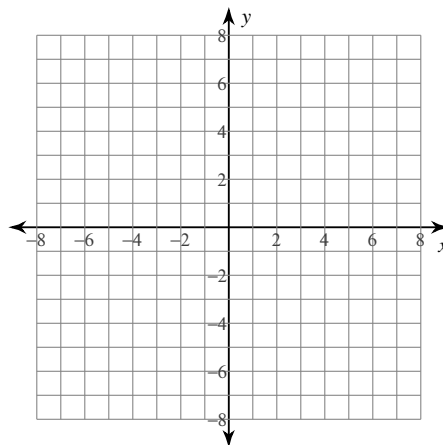
4) $y = \log_2(x - 1) + 3$



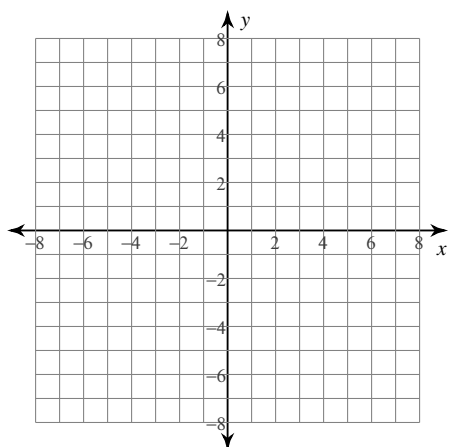
5) $y = \log_4(x + 1) - 4$



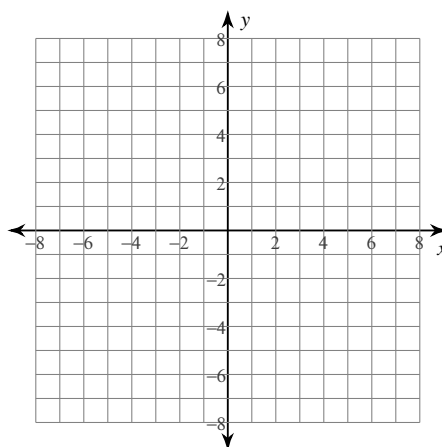
6) $y = \log_5(x + 1) + 1$



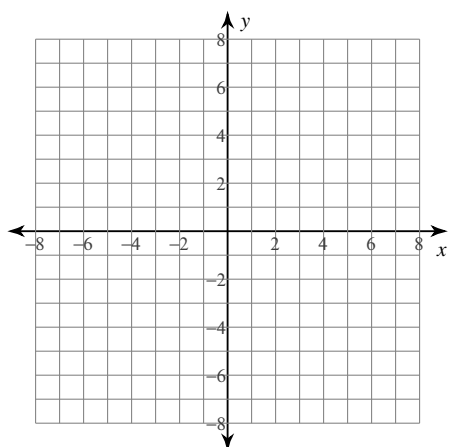
$$7) y = \log_4 (x + 2) + 1$$



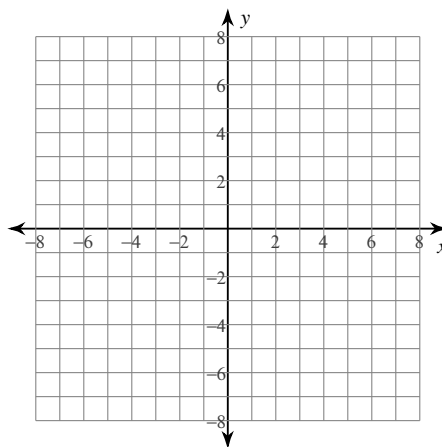
$$8) y = \log_6 (x - 2) + 1$$



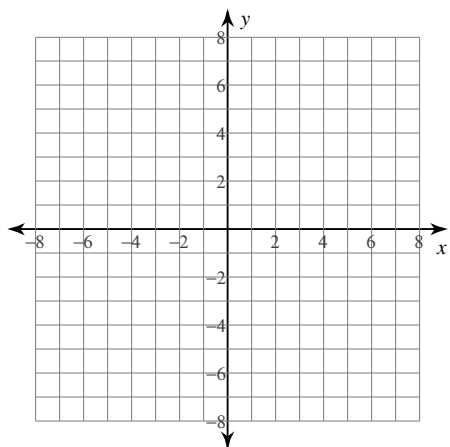
$$9) y = \log_4 (3x + 11) - 5$$



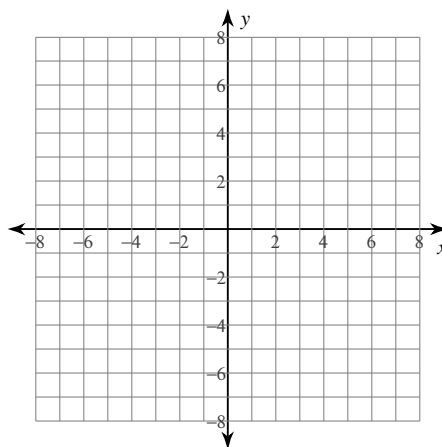
$$10) y = \log_5 (2x + 2) + 5$$



$$11) y = \log_6 (3x + 14) + 1$$



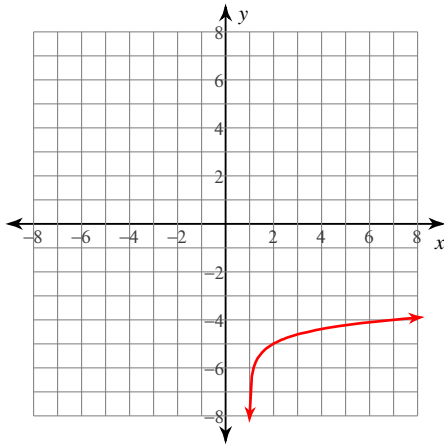
$$12) y = \log_2 (4x - 11) - 2$$



Graphing Logarithms

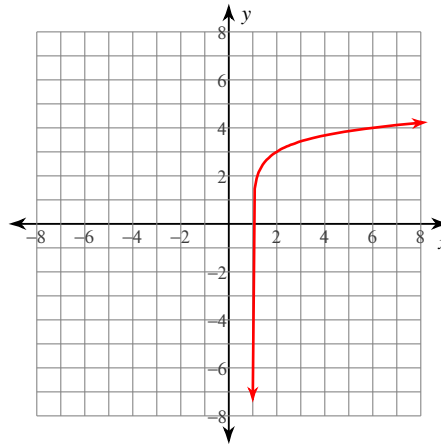
Identify the domain and range of each. Then sketch the graph.

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



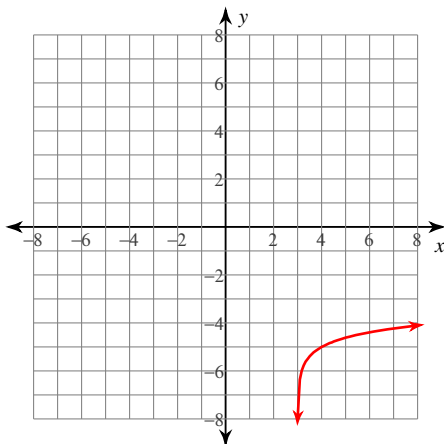
Domain: $x > 1$
Range: All reals

2) $y = \log_5 (x - 1) + 3$



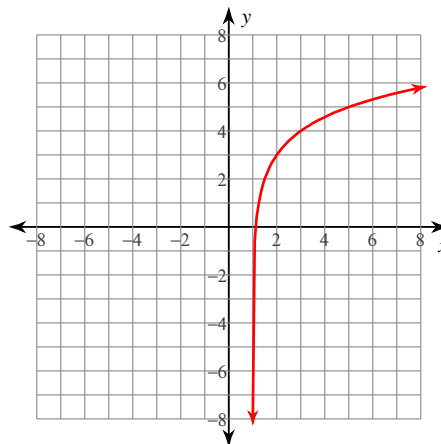
Domain: $x > 1$
Range: All reals

3) $y = \log_6 (x - 3) - 5$



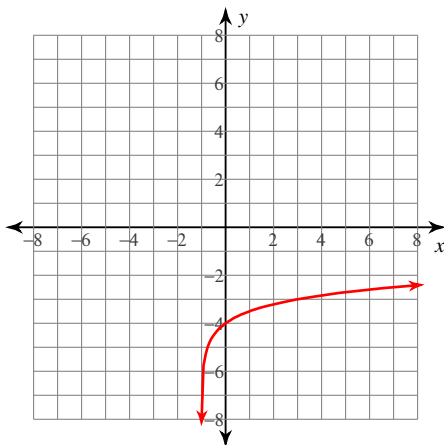
Domain: $x > 3$
Range: All reals

4) $y = \log_2 (x - 1) + 3$



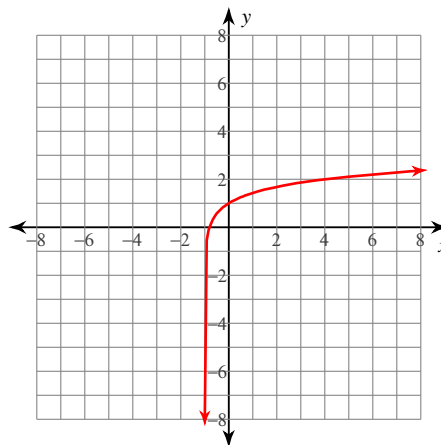
Domain: $x > 1$
Range: All reals

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



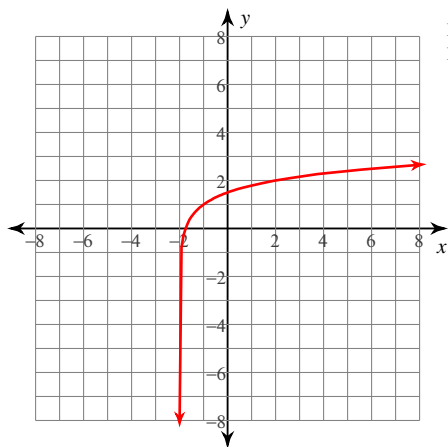
Domain: $x > -1$
Range: All reals

6) $y = \log_5 (x + 1) + 1$



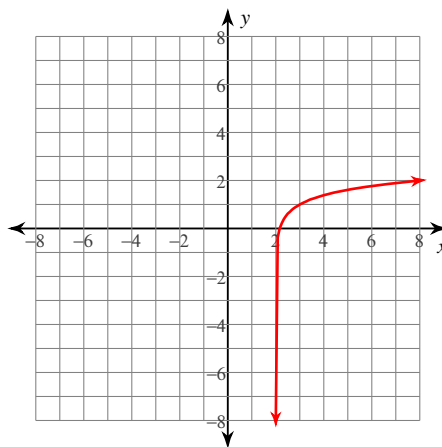
Domain: $x > -1$
Range: All reals

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



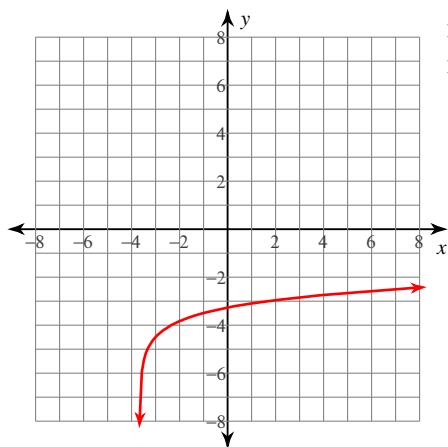
Domain: $x > -2$
Range: All reals

8) $y = \log_6 (x - 2) + 1$



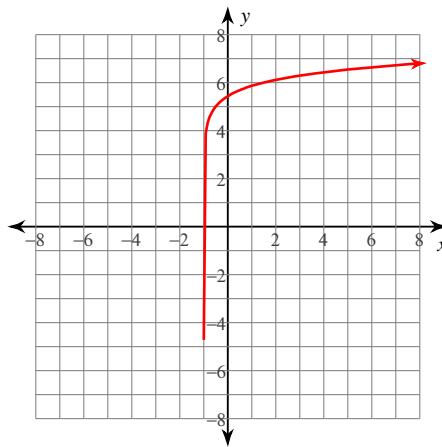
Domain: $x > 2$
Range: All reals

9) $y = \log_4 (3x + 11) - 5$



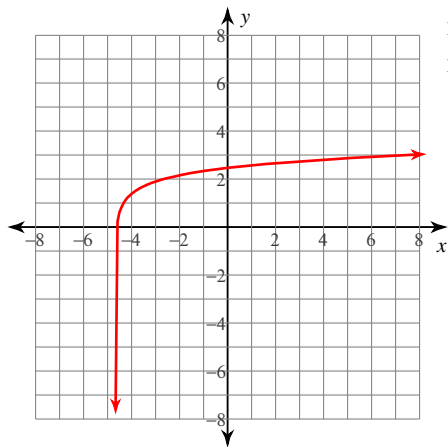
Domain: $x > -\frac{11}{3}$
Range: All reals

10) $y = \log_5 (2x + 2) + 5$



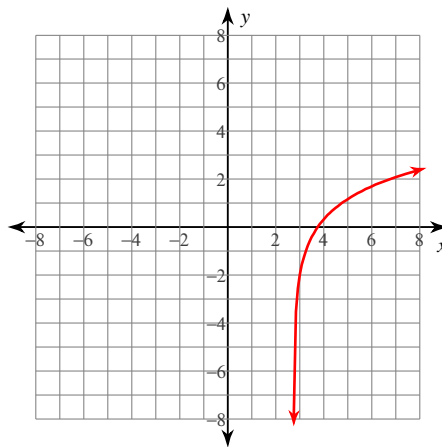
Domain: $x > -1$
Range: All reals

11) $y = \log_6 (3x + 14) + 1$



Domain: $x > -\frac{14}{3}$
Range: All reals

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



Domain: $x > \frac{11}{4}$
Range: All reals