

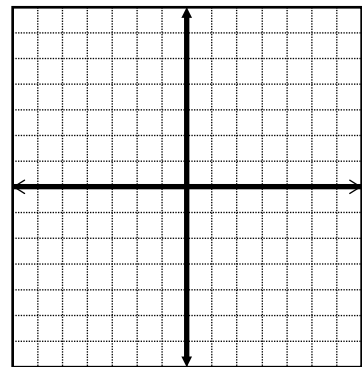
Graphing Logarithmic Functions Homework
Module 2, Unit 5, Lesson 10

Write the equation of the asymptote and find the domain of each function.

1. $f(x) = \log_4(x - 8)$

2. $f(x) = -3 + \ln(2x + 1)$

3. $h(x) = 1 + \log_3(x - 2)$

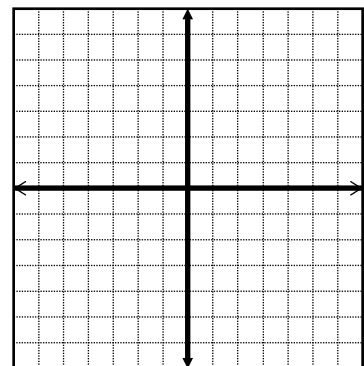


Asymptote: _____

Domain: _____

Range: _____

4. $f(x) = -3 - \ln(x - 2)$

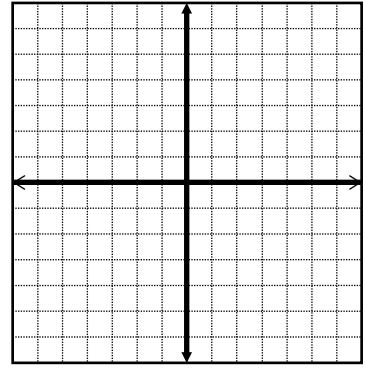


Asymptote: _____

Domain: _____

Range: _____

5. $f(x) = -\frac{1}{2}\log_4(x+3)$

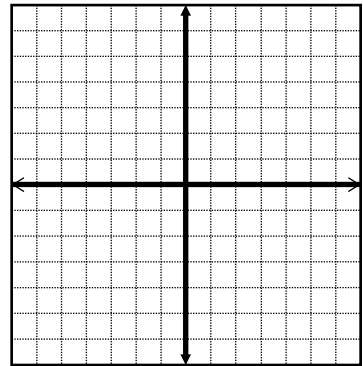


Asymptote: _____

Domain: _____

Range: _____

6. $f(x) = 3 + \ln 2x$

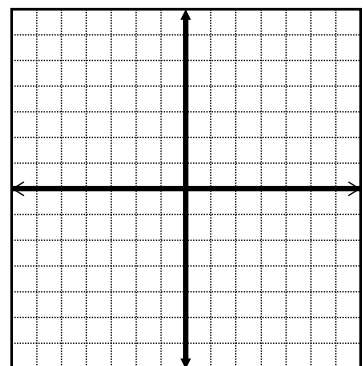


Asymptote: _____

Domain: _____

Range: _____

7. $f(x) = -2\log_2(2x)$

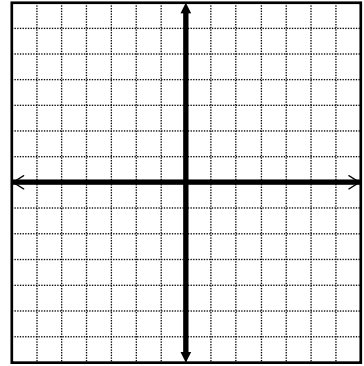


Asymptote: _____

Domain: _____

Range: _____

8. $f(x) = \ln(x+1) - 2$

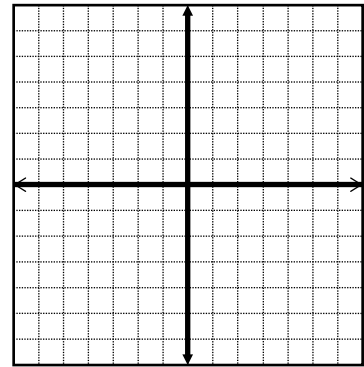


Asymptote: _____

Domain: _____

Range: _____

9. $f(x) = -2\log_2\left(\frac{1}{2}x\right)$

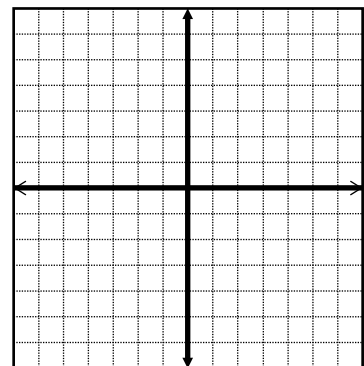


Asymptote: _____

Domain: _____

Range: _____

10. $f(x) = -3\ln x + 2$



Asymptote: _____

Domain: _____

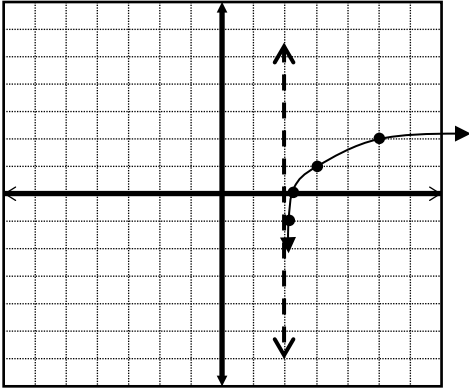
Range: _____

Answers

1. $x = 8, (8, \infty)$

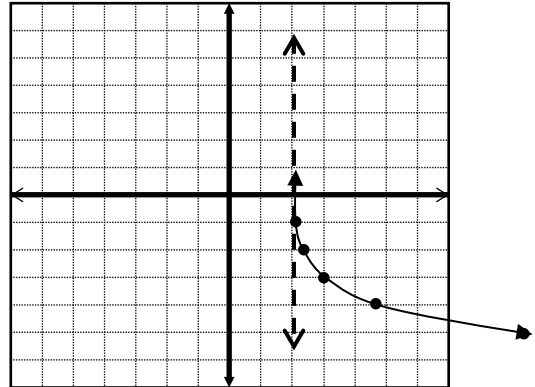
2. $x = -\frac{1}{2}, \left(-\frac{1}{2}, \infty\right)$

3.



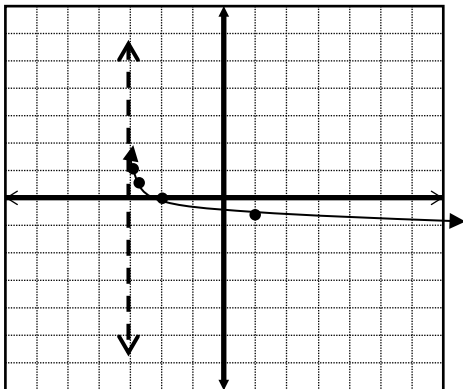
A: $x = 2, D: (2, \infty), R: (-\infty, \infty)$

4.



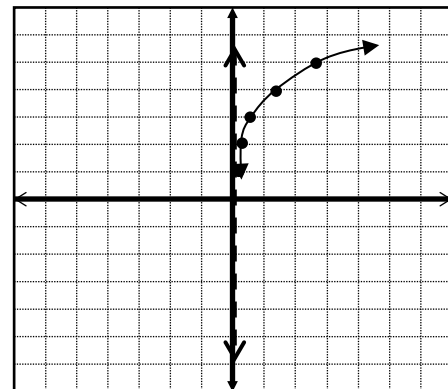
A: $x = 2, D: (2, \infty), R: (-\infty, \infty)$

5.



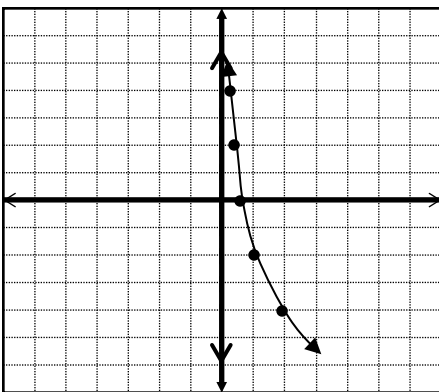
A: $x = -3, D: (-3, \infty), R: (-\infty, \infty)$

6.



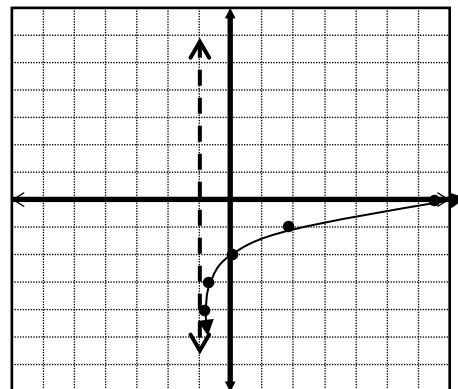
A: $x = 0, D: (0, \infty), R: (-\infty, \infty)$

7.



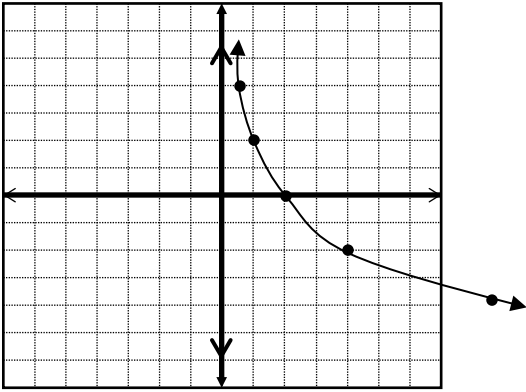
A: $x = 0, D: (0, \infty), R: (-\infty, \infty)$

8.



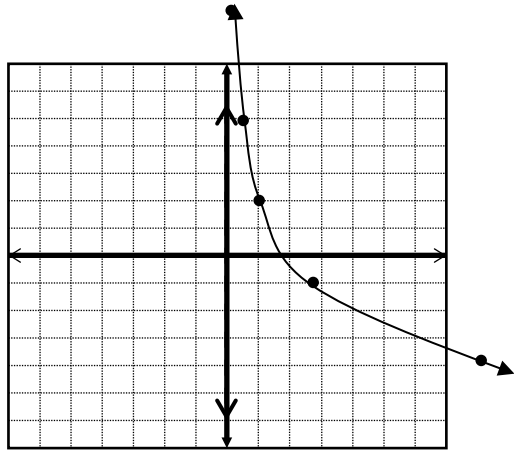
A: $x = -1, D: (-1, \infty), R: (-\infty, \infty)$

9.



A: $x = 0$, D: $(0, \infty)$, R: $(-\infty, \infty)$

10.



A: $x = 0$, D: $(0, \infty)$, R: $(-\infty, \infty)$