

Test Review
Module 2, Unit 5Find the inverse, f^{-1} , of each function.

1. $f(x) = \frac{2x+7}{3}$

2. $f(x) = \sqrt[3]{4x-3}$

3. $f(x) = e^{x+8}$

4. $f(x) = \log x + 2$

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

5. $f(x) = -\log_3(x-2) + 1$

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

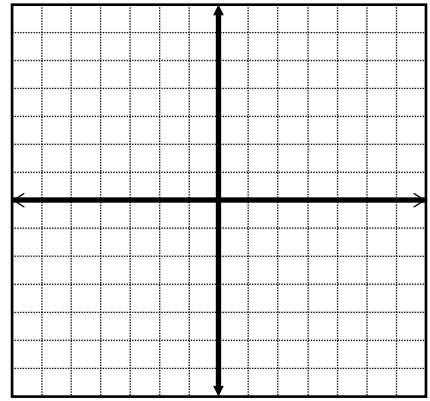
Describe the following transformations.

7. $f(x) = -5^{x-4} + 1$

8. $f(x) = \frac{1}{2}\log_3(x+3)$

Graph the following.

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

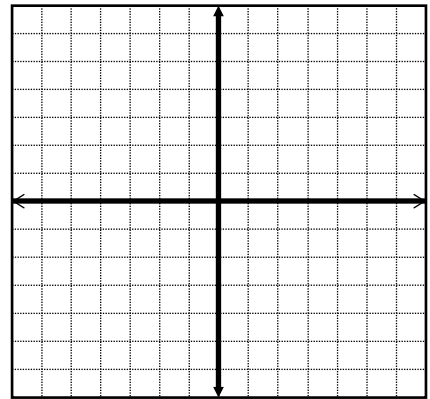


Asymptote: _____

Domain: _____

Range: _____

10. $f(x) = e^{-x} - 1$

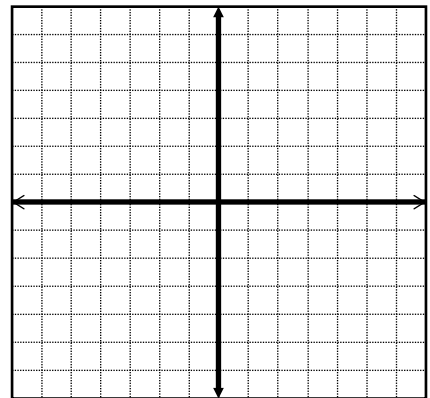


Asymptote: _____

Domain: _____

Range: _____

11. $f(x) = 1 - \log_3(x + 4)$

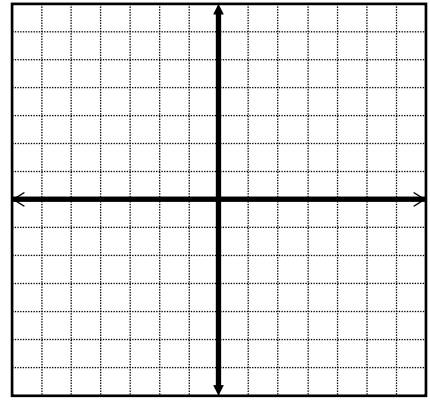


Asymptote: _____

Domain: _____

Range: _____

12. $f(x) = -2^{x-3} + 2$

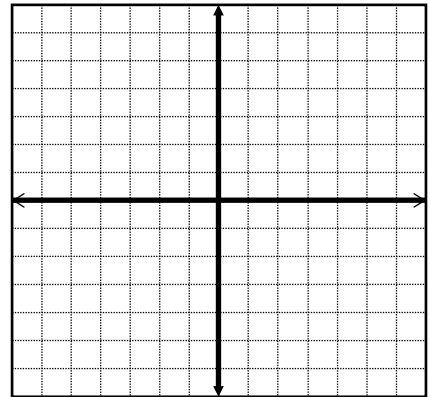


Asymptote: _____

Domain: _____

Range: _____

13. $f(x) = \frac{1}{2} \cdot (3)^{x-1}$

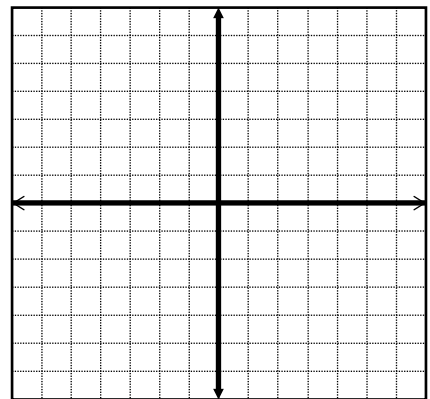


Asymptote: _____

Domain: _____

Range: _____

14. $f(x) = \log_2(-x) + 3$



Asymptote: _____

Domain: _____

Range: _____

1. $f^{-1}(x) = \frac{3x-7}{2}$

2. $f^{-1}(x) = \frac{x^3+3}{4}$

3. $f^{-1}(x) = \ln x - 8$

4. $f^{-1}(x) = 10^{x-2}$

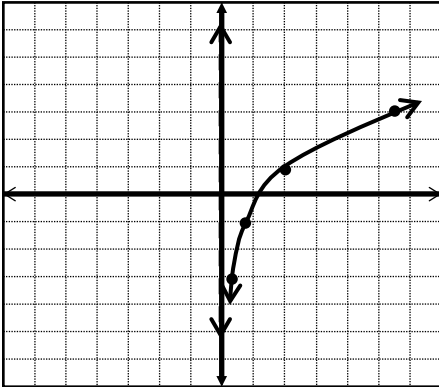
5. A: $x = 2$, D: $(2, \infty)$

6. A: $y = 3$, D: $(-\infty, \infty)$

7. Horizontal shift right by 4, reflect over the x-axis, vertical shift up 1

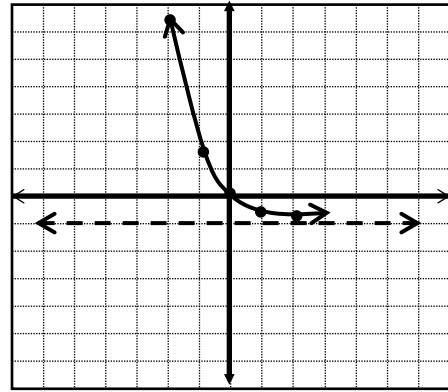
8. Horizontal shift left by 3, vertical shrink by $\frac{1}{2}$

9.



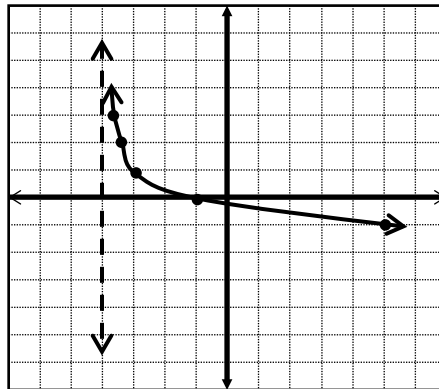
A: $x = 0$, D: $(0, \infty)$, R: $(-\infty, \infty)$

10.



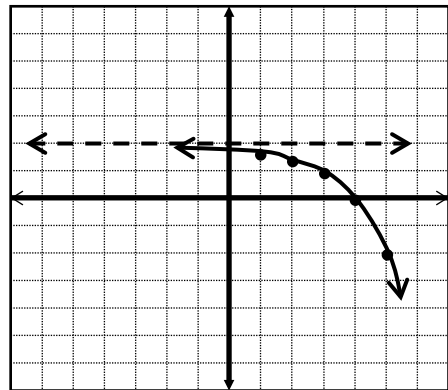
A: $y = -1$, D: $(-\infty, \infty)$, R: $(-1, \infty)$

11.



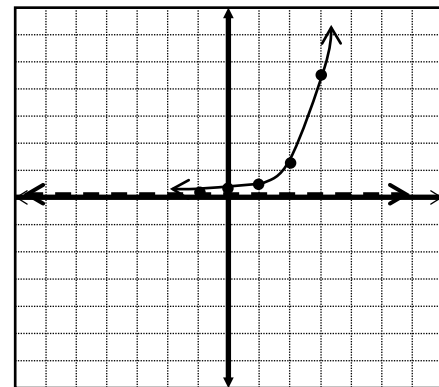
A: $x = -4$, D: $(-4, \infty)$, R: $(-\infty, \infty)$

12.



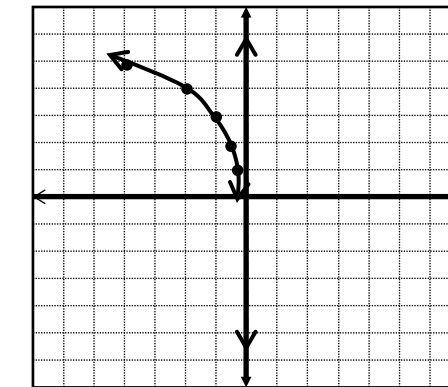
A: $y = 2$, D: $(-\infty, \infty)$, R: $(-\infty, 2)$

13.



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

14.



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