MAC1105 College Algebra
5.2 Practice Problems

Find the domain of the logarithmic functions.

1 $f(x)=\log(x-7)$

2. $g(x)=\log_2(9-x)$

Write the equation in its equivalent logarithmic form.

3. $5^3=125$

4. $2^{-2}=\frac{1}{4}$

Write the equation in its equivalent exponential form.

5. $-1=\log_4\left(\frac{1}{4}\right)$

6. $\log_{25}5=\frac{1}{2}$

Evaluate the expressions without using a calculator.

7. $\log_9 1$

8. $\log_7 343$

9. $\log 1{,}000{,}000$

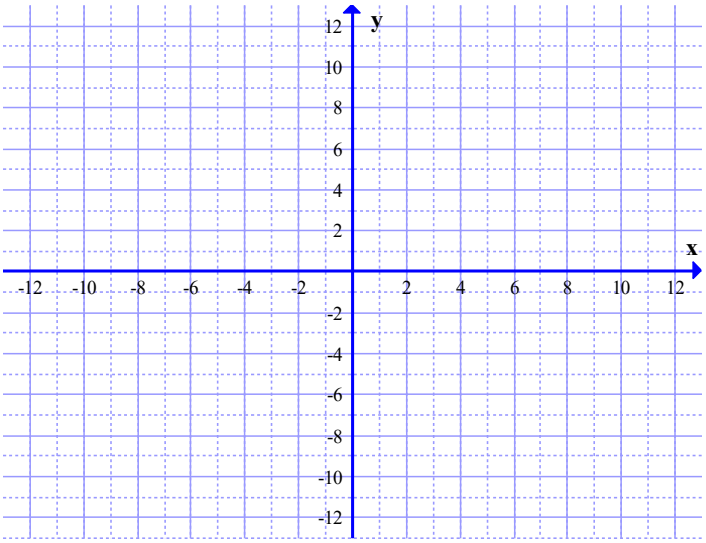
10. $\log_{81}3$

11. $\log_5\left(\frac{1}{125}\right)$

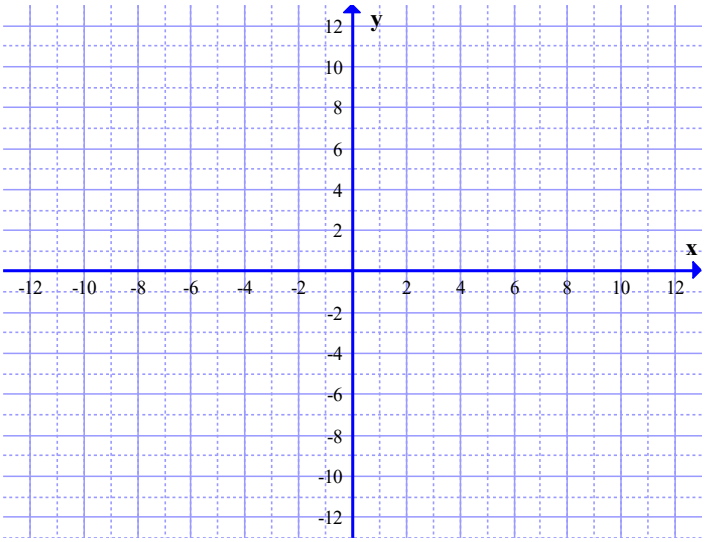
12. $\ln e$

Graph the logarithmic functions. State the domain and range.

13. $f(x)=\log_4 x$



14. $g(x)=\log_{1/2} x$



15. $h(x)=-\log_2(x+5)+2$